

MOTOR AGE

Vol. VII No. 1

CHICAGO, JANUARY 4, 1905

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Gentlemen:

It gives me the greatest pleasure to let you know how well the Morgan & Wright tire has stood up on our Knox automobile. The machine was delivered to us in April with a set of ----- tires on same. Inside of a month one of these tires was used up. It was then replaced with a Morgan & Wright tire which has outlasted the three original tires which have gradually been replaced with your clincher. This tire, which was put on in May and run almost ever since, looks as good as new.

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MOTOR AGE

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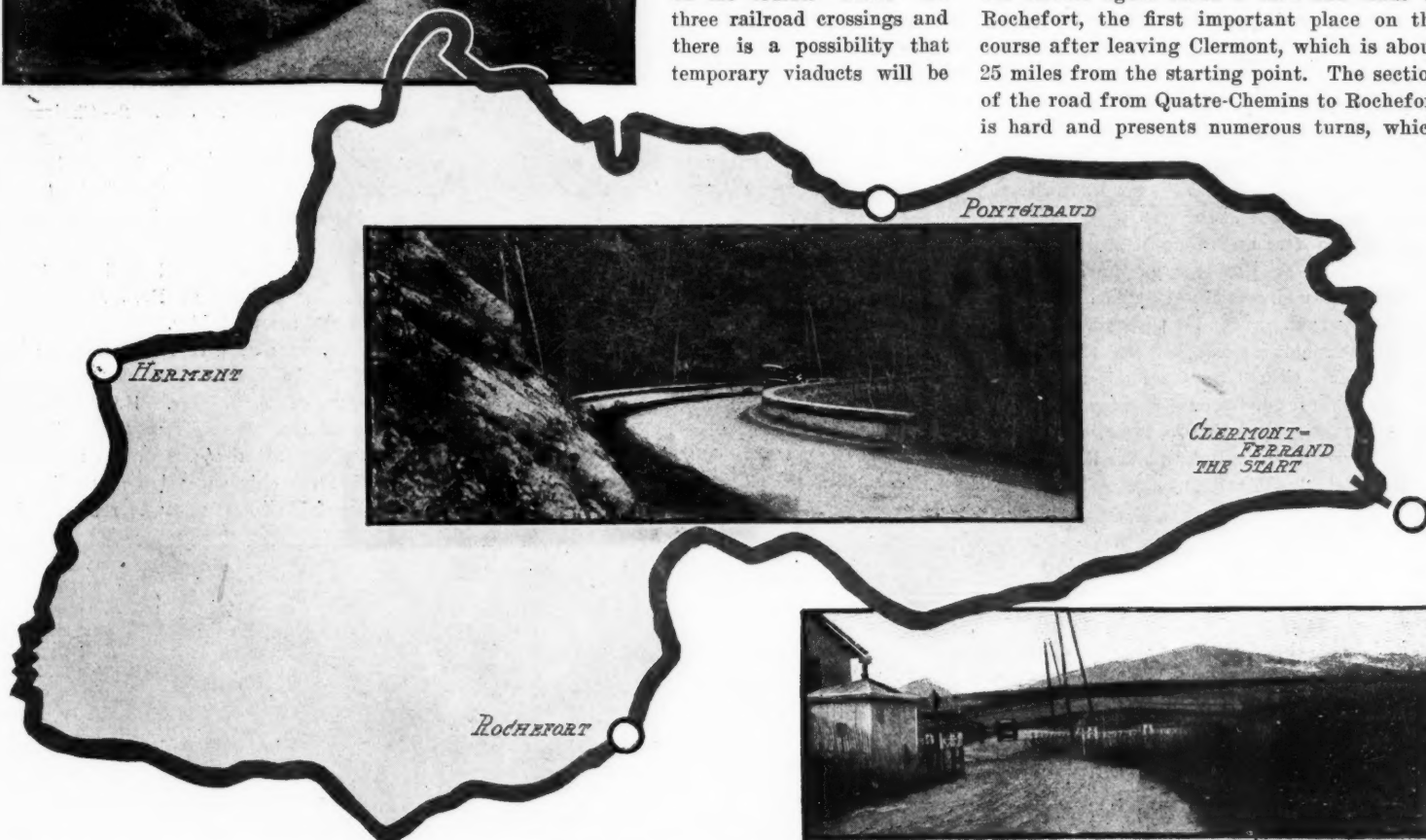
AUVERGNAT COURSE FOR BENNETT RACE

The 1905 Bennett cup race and the French eliminating race are to be run upon the Auvergnat circuit, which was definitely chosen by the sports committee of the Automobile Club of France last week. The course is

The advantages of this circuit over the half dozen others suggested are that almost all the roads are from 10 to 15 feet wide. There are a few level stretches from 4 to 8 miles long, some stretches for several miles are merely successions of hills and there are some very sharp turns. There will probably be only two neutralizations, these being in the only two towns, almost, on the course. There are three railroad crossings and there is a possibility that temporary viaducts will be

nearly one-third mile above Clermont-Ferrand.

There are three turns which are rather difficult, and one of them, called "the great turn of la Baraque," is located on a 12 to 17 per cent grade, but as the road is wide, careful handling of the car will lessen the apparent difficulty. The road then turns and leads into a valley where for several kilometers the most difficult part of the course is met, having sharp turns, steep hills and down grades. At Quatre-Chemins, or four roads, the circuit again takes a turn and leads to Rochefort, the first important place on the course after leaving Clermont, which is about 25 miles from the starting point. The section of the road from Quatre-Chemins to Rochefort is hard and presents numerous turns, which



located in the state of Puy-de-Dome, one of the most beautiful sections of France and not far distant from many watering resorts, but not in the immediate vicinity of many populated towns or villages. The start and finish will take place less than half a mile from Clermont-Ferrand, the most important city near the course. Michelin, the well known tire manufacturer, suggested this course to the members of the sports committee and motorists who had gone over it thought it was an ideal succession of roads, with all the required difficulties to enable a fine race.

constructed over them all.

Clermont-Ferrand, the capital of Puy-de-Dome, is a city of from 70,000 to 80,000 inhabitants. About half a mile outside the city gates is Quatre-Routes square, a large place where four important country roads meet. The start of the race will be made from there, and the road, which is fairly wide, leads to Mareno, about 8 miles from the start and which is at an altitude of



often cannot be seen from the distance and which are also flat. There is hardly any indication when near the city where the latter starts, and the greatest care will have to be



AT A BAVARIAN MOTOR SCHOOL—TESTS OF STEERING ABILITY

shown in driving, because in getting out of the town the road suddenly develops into a 10 per cent incline.

After a short relief from the hilly road, another steep section is met and near Laqueuille, a turn is taken almost at right angles in order to get to Bourg-Lastic. During this part of the circuit the road goes through a forest and is wide and level.

From the last-named place to Herment the course is excellent, and although the roads are not quite so wide as heretofore, it will be possible for two cars to pass each other without difficulty. From Herment to Pontamur, a distance of about 12½ miles, the road presents a continuation of grades, none very steep, but so frequent that it will require close attention on the part of the driver in order not to make miscalculations.

From Pontamur to Pontgibaud there is only one difficult section, where the course makes a short turn, almost a half circle, and then continues for about 7 miles over a wide and fast road. The last section of the course, from Pontgibaud to Quatre-Routes, offers no special difficulties.

It is not said whether the circuit will follow the old national and state roads or if in some sections the newer roads will be followed, but the entire course is expected to be about 135 kilometers or 84 miles long. Rochefort and Pontgibaud will be the only neutralizations, unless the three railroad crossings which are met will be included. There is, however, talk of raising a fund in order to build temporary viaducts over these crossings.

There was another road suggested, also starting from Clermont-Ferrand, but leading more to the south. The mayor of the city when asked what would be done in case either circuit be selected, said: "It is difficult to say exactly what will be done, because we don't know what the expenses will amount to. However, the municipality will do its share. It will take care of the grand stands and receptions to be given; the villages will get together and take care of the problem of getting the roads in good condition; the hotelmen's association of the city and of the resorts like Royat, Mont-Dore, Chatel-Guyon and others, will contribute largely, inasmuch

as it is to their interest to draw the crowd, while much support will surely be found among the many people interested in the rubber industries of the state."

Before the Auvergnat circuit was chosen Brasier, Thery and Callois made a trip over the proposed course. The French manufacturer said he would line up wherever the trials are held, but he would protest most emphatically if the Auvergnat circuit were chosen, as he considered it extremely dangerous and because he thinks the results would not be decisive. Callois and Thery also considered the course severe and the former said it would be sending the drivers to death to have them go over this course.

The matter of expenses connected with the arranging of the race and the entry fees has again been much talked about lately. It is estimated that the expenses will amount to at least \$60,000 and the Automobile Club of France has not this amount of money. The suggestion to make the entry fee \$2,000 per car, which would be \$6,000 for each club entering three cars, has met with little favor on the part of the makers. The latter claim the expenses of making the special racing

cars and then getting ready amount to a fortune, so that the present entry fee is about as much as they care to stand for. It has also been suggested that the entry fee amount to \$1,000, but that each maker consent to supply another \$1,000 if extra money is needed.

RETURNING FROM PARIS

New York, N. Y., Jan. 2—Each steamer brings returning visitors from the Paris show. J. S. Josephs, of the Automobile Importing Co., returned several days ago with a contract for the exclusive agency in America of Rochet-Schneider cars, while the steamer Philadelphia, which arrived yesterday, brought in Norris Mason, the new American agent for Bollee cars; J. K. Christie and W. Palmer, importers of Martini cars; E. D. Winans, with an agency contract for Michelin tires, and R. A. Greene, of the Locomobile Co., of America.

On board the incoming steamers are dozens of European tradesmen en route for the American shows. Among them are Count de Biron and Emile Voigt, of the Charran, Girardot & Voigt Co.; Louis Renault, of the Renault works; A. Clement, E. Lamberjack, Paul La Croix and Clovis Bertrand, of the Bayard-Clement concern; Henry Fournier, representing the Hotchkiss Co.; C. L. Charley, representing the Mercedes; Baron de Turkheim, of the de Dietrich; George du Cross, the Panhard representative in England; Baron de Caters, representing the Pope company, and Signor Marqueezi, of the Fiat.

MILE RECORDS NOT ALLOWED

New York, N. Y., Jan. 2—Chairman Pardington, of the racing board of the American Automobile Association, has made announcement that the board has determined not to accept the mile records of Barney Oldfield and Earl Kiser. Accordingly the 52½ seconds scored by Kiser at Cleveland and the 51½ seconds made by Oldfield at Denver must be wiped from the record tables.

Mr. Pardington states that the action was taken owing to the discrepancies of the figures in the reports of the timers. He says that the honesty of the officials is not questioned, but their reports left the question so much in argument that the only safe plan in the interests of indisputable records was to refuse their



AT A BAVARIAN MOTOR SCHOOL—CURING A BALKY MOTOR

acceptance by the A. A. A. racing board.

The racing board chairman confesses he now leans toward MOTOR AGE's frequent insistence that intermediate mile times should not be accepted as mile records, owing to the chances offered for error and fraud, and the public being deprived of a chance to check the work of the timers, and that mile records should only score when made in separate mile trials or in races at that distance. He is inclined, though, to accept first miles in races at longer distances on the argument that the public would be given a chance to time the mile for itself. The latter, however, is a bit dangerous through the chance that three timers might not split their watches at the end of the first mile and so leave a chance to figure erroneously or fraudulently the relative timers of the first and second miles.

This probably gives the mile record to Charles Basle, who, September 9, at the Providence meet, won the 10-mile free-for-all with the 90-horsepower Bowden Mercedes, and in the race drove his third mile in 54 seconds. If the racing board does not take an intermediate mile for this mark the record remains as last year, 55 seconds, by Oldfield with Winton Bullet II in a mile trial.

ANOTHER DEMONSTRATION

St. Paul, Minn., Jan. 2.—The police department of St. Paul was forced to seek the assistance of automobiles recently to keep its ambulance service in operation. The success with which the motor cars did the work which horses were unable to do has aroused so much favorable comment that a motor ambulance is now seriously talked of by the authorities. A drizzle and sleet made the streets of the city so slippery yesterday that nearly all traffic had to be suspended. Horses were unable to travel, although well shod. The police ambulance, in responding to a sudden call, got no further than the pavement outside the station barn before both horses were flat on their sides.

The ambulance driver hailed C. J. Joy, who was passing in a big touring car, and the latter consented to make the hurry call. The car returned to the hospital, and Mr. Joy then offered the use of his car for the balance of the day. The ambulance of the city hospital was also incapacitated, and another automobile was substituted for this. The two cars ran all day for the hospital and police department.

SEVEN COUNTRIES IN CUP RACE

Paris, France, Dec. 31.—Special Cablegram—The entries for the Bennett cup race closed today and seven countries have entered cars. All of them had representatives at the Taunus when the start was given last June 17, and the only country whose flag bearer did not start was Switzerland. An absentee in the 1905 race will be Belgium, which was expected to be again represented with a Pipe car. The countries which have entered for the big race are: Great Britain, Germany, Italy, Austria, the United States, Switzerland and France.

It is probable that the only countries which will hold eliminating trials to determine who shall constitute the teams will be France and England. In these two cases there are many makers who aspire to the honor of representing their countries, while in the case of Germany, Italy, Austria, the United States and Switzerland, the conditions are such that the respective clubs may appoint the candidates without an actual qualifying race.

GLIDDEN IN SOUTH SEAS

Noted Traveler Spends Few Hours in Hawaii and Reaches Capital of Fiji Islands

Honolulu, T. H., Dec. 19.—With only 3 hours to spare, as the Canadian-Australian steamship Moana was to lay but that time in Honolulu harbor, Charles J. Glidden, the world-circling automobile tourist, started out on Saturday, December 17, to see as much as possible of Honolulu, and when, after covering a couple of the principal sights and passing through the most beautiful part of the city, his time ashore had expired, it was with the most openly expressed regret that he was again compelled to continue his journey to the south seas. Mr. Glidden had planned at one time to give considerable time to the islands of the group, on four of which he would have been able to traverse excellent roads and see such scenery as probably he will not encounter in any other country which he will visit, but contingencies arose which made it imperative that he proceed, and he therefore cheated himself of some of the prettiest sights en route.

When the steamship Moana docked, the big Napier car was in slings, and within a very few minutes was out on the dock to start. Mr. Glidden had letters to a number of Honolulu people, and was met at the dock by J. A. Magoon, who acted as cicerone during the few hours. After a few moments at the Von Hamm-Young garage the tour of the city was undertaken. The run to the famous Nuanupai, the roads being in the most perfect condition, the showers having laid all the dust, was made in less than an hour, after which a drive was taken through the principal residence streets of the city, and on to Waikiki beach. After a run through Kapiolani park and around Diamond Head, a stop was made at the Aquarium, where is collected a most remarkable series of tropical fishes. These odd-shaped, fancifully-painted, often grotesque-appearing sea denizens proved of the highest interest to Mr. Glidden and his party, and considerable time was spent here. Returning, stop was made for a call upon Governor Carter, and the big machine was then whirled through streets to the dock, just in time to be hoisted aboard before the sailing hour arrived.

Mr. Glidden was outspoken in his declarations of sorrow that he had not been able to arrange for a longer stop, as he had found the conditions atmospherically, scenically and to the roads, better than he had anticipated, and only that he could not hope to catch up with his schedule should he give to the islands the time they deserved, he would have cut loose from the pre-arranged plans and spent several weeks here. Opportunity to overlook the Napier machine by automobile enthusiasts here was very slight, but was improved by everyone who had the chance. No car of the same size had been seen upon the city streets, and wherever seen it aroused great interest.

New York, N. Y., Jan. 1.—Charles J. Glidden, the around-the-world tourist, has reached Suva, capital of the Fiji Islands. As Suva is just across the 180th meridian, it is a day in advance of New York, so that it was New Year's day there. Mr. Glidden has now traveled about 25,000 miles. From the Fiji islands he

goes to New Zealand, Australia, New Guinea, Borneo, Sumatra, China, India and Africa.

The Napier car which Mr. Glidden is driving on this extensive trip is the same one with which he toured Europe in 1903 and in which he crossed arctic circle. Returning to Boston last summer Mr. Glidden joined the A. A. A. tour to the St. Louis world's fair. He then drove to Minneapolis from which point he drove to Vancouver, B. C., on the Northern Pacific railway, the car being equipped with special flanged wheels to fit the tracks. Vancouver was the point of sailing for the south seas.

CAREFUL ABOUT GASOLINE

New York, N. Y., Jan. 3.—On the grounds that the conditions were in flagrant violation of the rules of the fire department, Commissioner Hayes, upon the recommendation of Superintendent Murray of the bureau of combustibles, has revoked the garage license granted to G. F. Gerome, who conducts an automobile garage and repair shop at 71 South Washington square. Since the disastrous fire in the garage in Thirty-ninth street several weeks ago, Superintendent Murray has had Deputy Inspector Horne looking over the garages throughout the city to find if any of them are being operated in violation of the fire department rules. So many instances of violation of the rules have been discovered, it is understood, that other revocations of licenses will follow.

Inspector Horne reported that in the Gerome garage were two large stoves in the rooms where the automobiles are stored. Within 15 feet of one of these stoves he said was a gasoline storage tank, surrounded only by wooden partitions, instead of brick, as required. In its rear, he added, was an extension separated from the main building only by walls of wood. He said that it would be easy for a bad fire to start and gain headway. Several families live above the garage and behind it is factory where 300 persons are employed.

The new rules governing the sale and storage of gasoline, which the automobile dealers helped to frame, require that no license shall be granted where the "day population of the building exceeds 100 people." No heating stoves or furnaces will be allowed in garages.

About 10 days ago the garage of the Michelin Tire Co., had its license taken away because some 200 people were employed on the upper floors, although extraordinary precautions against fire had been taken by the company.

AMERICAN AT IMPORTERS' SHOW

New York, N. Y., Jan. 3.—F. Ed Spooner, press agent, sent out the following story today to the local press:

"An American car will be shown at the Importers' exhibition at Herald square hall. The American Automobile & Storage Co., New York agent of the H. H. Franklin Mfg. Co., has arranged for this exhibit on its own account."

Manager Camacho, of the American Automobile Storage Co., in a talk over the phone today confirmed the story. He intimated that dissatisfaction with the space allotted his concern at the Madison Square garden show was at the bottom of the move. Mr. Camacho said he had not been informed by his principals whether a withdrawal from the American show would follow.

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MEMBER NATIONAL ASSOCIATION OF AUTOMOBILE MANUFACTURERS	OFFICIAL ORGAN OF THE AMERICAN MOTOR LEAGUE	MEMBER CHICAGO TRADE PRESS ASSOCIATION

MOTOR AGE is the "real thing." This is not said in egotism or in a spirit of bragging.

MOTOR AGE has been called by jealous eastern automobile papers the "Windy City Braggart." The reason for this has been that many times during the last 12 months MOTOR AGE has done certain things that the eastern papers did not and could not do, and has called attention to such accomplishment. In each case the statements by MOTOR AGE have been the mere recital of facts, showing that MOTOR AGE has produced papers containing big news stories quicker and more artistically than any other equivalent stories have ever been produced by any other weekly paper. Jealousy has been the cause of the creation of such nicknames as the "Windy City Braggart." Let it go at that. MOTOR AGE has delivered the goods, and has told the people how it has delivered the goods better and quicker than all other motor papers. If this be bragging, MOTOR AGE is a braggart.

The publication of important news quickly so that the reader of a weekly paper gets this news in the style and careful manner of a weekly, with the speed of publication rendered by daily papers, is not the whole purpose of the publisher of MOTOR AGE, or the principal object of MOTOR AGE as an automobile paper. It is merely one of the factors in the production of an enterprising, up-to-date class periodical.

MOTOR AGE endeavors to meet all of the requirements of automobile journalism. It is not a specially conceived paper for a special class of readers. It is published with the view of meeting the desires of the average reader of an automobile paper—in other words, with the intention of publishing the class of matter which is best suited to benefit the majority of persons who are interested in the automobile trade and in automobiling.

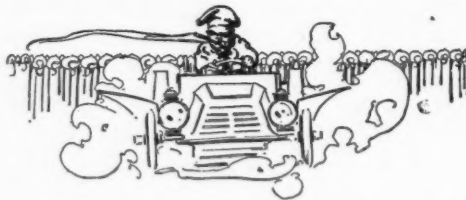
A part of such a policy is the publication of the news of automobile events, particularly the publication of the events of greater prominence which give automobiling its characteristic features as a distinct branch of human interest.

If the stories of such events are published, they should be published as news, and not as reviews or critiques for the edification of enthusiasts who have previously read all of the various newspaper stories of the events and wish to make a further and studious investigation of the subject.

Whether it is published in a weekly or in a daily or in an extra, the story of a big event is news. It cannot be warped into an essay. Webster's dictionary gives as a definition of news, the term "fresh tidings."

The summarization of all of these statements is that MOTOR AGE recognizes the news value of the different occurrences and endeavors to make all of its stories "fresh tidings." That it has done so is amply shown by the fact that a year ago, almost, MOTOR AGE was

the first paper to be distributed in Madison Square garden, New York, with a carefully-written, thorough report of the annual New York automobile show, and was the first paper to be distributed through the mails that week with the whole story told and told conclusively without continuation; that MOTOR AGE was the only paper to be distributed at the Chicago show with an accurate, complete story of the show, and to be mailed that week with the whole story finished and made a matter of record without further qualifications and additions; that MOTOR AGE was the paper to publish first the story of the spring hill-climb in Boston, in which American automobiles of 1904 were first pitted against European automobiles in a grade-climbing contest; that MOTOR AGE beat all of the automobile papers, with one exception, in the reporting of the development of the commercial vehicle service test promoted by the Automobile Club of America in New York, the one exception being a New York paper which managed to issue in New York a story of the test to a certain



date by the time MOTOR AGE of Chicago distributed in New York papers containing the same story up to the same date; that MOTOR AGE was the only automobile paper to publish, the week it happened, the story of the final trials on the Empire City track at Yonkers, N. Y., of the nominees for positions on the American Bennett cup race team, whereby it was decided that America would not have representation in the international race; that MOTOR AGE was the first paper of any kind in the world to produce and distribute a complete edition containing the story of the Bennett cup race in Germany, June 17, MOTOR AGE having been issued in Chicago and New York simultaneously and put into circulation in both cities ahead of any afternoon paper containing the same story, and into the mails to be distributed to all readers between Omaha, Neb., and the Atlantic coast at the same time these readers would receive morning papers with the same story, and exactly a week ahead of all other automobile papers; that on the occasion of the election day race meet at the

Empire City track MOTOR AGE published and distributed a story that got into only a few of the eastern papers in any kind of shape, and illustrated this story with photographs taken at Yonkers, N. Y., only 30 hours before half-tone reproductions of them were put onto the MOTOR AGE presses in Chicago; that on the occasion of the Eagle Rock hill-climb, near Orange, N. J., Thanksgiving day, MOTOR AGE published the full, photographically-illustrated story of this event exactly a week ahead of all other automobile papers.

The above statement of facts concerning the enterprise of MOTOR AGE are only examples of the careful, wideawake, workmanlike, conscientious manner in which MOTOR AGE has endeavored to fulfill its mission in automobilism.

If it has published stories of prominent automobile events ahead of all other automobile papers, it has also consistently, every week, published the news of the minor events of automobilism, the news of the automobile trade, the descriptions of the new products of the industry, special articles of common interest to all persons animated with automobiling, technical articles within the reach of popular understanding, expert advice upon mechanical and technical problems propounded by readers of the paper, and the hit-and-miss incidental paragraph news of the twentieth century locomotion world.

All this has not only been done and done in a manner which would furnish reading matter worth the while of all classes of readers, but has been done in a style that from the standpoints of newspaper excellence, illustration and typographical appearance have excelled the results attained by all other weekly automobile papers. This statement is made conscientiously in realization of the fact that anyone can determine the truth of it by simply referring to the files of all of the weekly automobile papers of 1904.

A year ago MOTOR AGE reviewed what it had accomplished during 1903 and told what it expected to accomplish in 1904. This week MOTOR AGE can truthfully claim to have done what it set out to do.

Considering all things, MOTOR AGE feels that it has the right to say for itself at the beginning of 1905—a year in which it proposes to utilize its every facility in the accomplishment of still better results—that it begins the new year as the "real thing" in automobile journalism. It recognizes the mistakes it has made and it begs the indulgence of its patrons for such mistakes. It recognizes an honest, competent and generally first-class competition; yet it is enough confident of its ability to accomplish great things during 1905 to risk being called a braggart for saying boldly at the outset of the new volume that it has in the past demonstrated its right to claim that it occupies a position in the vanguard of class journalism, and has further right to be proud of what it has done and confident of what it expects to do.



Jump Sparks

What good will that automobile army train do the Russians now?

May the American Automobile Association find out where it is at in automobile race control before the racing season opens.

Nobody has forgotten those geisha girls at the forthcoming importers' show in New York. They will attract, even if the French cars do not.

When Mr. Glidden returns from the Fiji islands he ought to have a good fund of stories to tell. All one can ask is that he tell the naked truth.

The managers of the importers saloon have invited the other dead ones to meet them at the morgue after the last week of their show. This appears to be an awful admission.

Now that Barney Oldfield has been deprived of the mile record, yet has had all the good advertising effects from it, he can start in and do the job over and still get a little good out of it all.

So far, the Americans returning from the Paris show have talked nothing but automobiles, not even the "automobile night" at the Moulin Rouge having been mentioned. Was it too tough or too tame?

It must have been pretty tough for Maurice Fournier, a Frenchman, to have demonstrated to other Frenchmen that a little American runabout could travel over 3,000 miles within a given time over French roads, and incidentally pocket a wager of \$20,000.

When one considers the length of the Florida automobile and motor-boat tournament program, doesn't it suggest that possibly all those on and off-again rows that were reported were for advertising purposes? Senator Morgan always was a good press agent.

First thing the Automobile Club of America knows, if it gets to borrowing such huge sums as \$420,000 for a club house, it will have a Chadwickian reputation. Why not hit Andrew Carnegie for a little? Still better, John D. Rockefeller—Dr. Harper says he's easy money.

In Paris the body makers offer the tire makers prizes to build good tires, and the tire makers offer rewards for the body makers to improve the bodies. Which suggests that this is a sort of mutual bouquet-throwing society, with the public paying holiday prices for the bouquets.

In Iowa there is a state law providing the operator of a motor vehicle shall stop on signal from the occupant of a horse-drawn vehicle. An automobilist a short time ago obeyed the law so promptly that he still occupied more of the road than he should and caused a runaway, being sued for his promptness or for resulting carelessness. Notwithstanding the fact that the higher court gave him a verdict and said he couldn't obey the law without breaking it, the question among Iowans is whether it is better to obey or disobey the mandate of the legislature.



The rear entrance tonneau is evidently glad that it can be buried in the same grave with 1904.



Racing board of A. A. A. refuses to allow Kiser's mile record of 52.4-5 seconds, made at Cleveland, and Oldfield's mile record of 51.1-5 seconds, made at Denver.

Plans for Florida automobile and motor boat races completed, with promise of immense entry list.

French makers offer prizes for tire, body and chassis with view of improving general construction of cars.

Medals awarded makers at Paris show; Americans share in honors.

American Pope-Toledo car most expensive chassis at Paris show; Mercedes prices lowered.

Automobile Club of France selects Auvergnat course for 1905 Gordon Bennett cup race; course not ideal, according to reports.

Seven countries entered in Bennett race.

Charles J. Glidden makes short trip around Honolulu and proceeds on his world-girdle tour, reaching Fiji islands.

Importers' show opens next week in Herald Square hall, New York; many novelties arranged.

Local shows at Buffalo and Detroit promise to be larger than expected.

MOTOR AGE correspondents throughout the country give detailed report as to past year's trade conditions and prospects for the coming



Will Colonel Pope have to have a ticket to the N. A. A. M. blowout this year?

May the first work of the N. A. A. M. in the new year be the accomplishment of some good in the better highways movement.

It should be explained that medals such as were awarded at the Paris show are not given for their intrinsic value, but for their advertising value.

When some of the French and German automobile makers read the Detroit review of the past year's business they will think they have been going backward a few.

A wise move that, of the Automobile Club of Dallas, Texas, in electing E. H. R. Green—Hetty's son—treasurer. One can easily see the finish of some of Hetty's coin.

The automobilists of St. Louis are all stirred up over the theft of a runabout, which suggests that it is a good thing to have even that to stir some people up once in a while.

A catalogue recently received by MOTOR AGE states that the car described has a transmission gear of the "French planetary" type. Wouldn't this jar la Chambre Syndicale de l'Automobile!

MOTOR AGE has no better wish for 1905 than that the automobile industry as a whole will continue the same honest commercial policy which has characterized it thus far. May Frenzied Finance never enter motordom.

There is a good deal of trouble among ordinary men about pronouncing French proper names, and the title of the 1905 Bennett cup race course—Auvergnat—is hardly any exception to the rule. Suppose that name be termed Abernit, just for short.

Here's hoping that in its calendar of prominent 1905 events, to be published in the first issue of 1906, MOTOR AGE may be able to say that the Automobile Club of America has moved into its own club-house—and that the Chicago postoffice is finished.

The Automobile Club of France doesn't like the condition that only three cars may be entered in the Bennett cup event by one country and so proposes to have another international affair. What does France want, to pit forty or fifty cars of its own manufacture against two or three from each of the other countries? Can't it win with an equal representation or is it just afraid of the possibilities of defeat?

Down in Syracuse, N. Y., they don't know exactly what to do with the money received from fines paid by scorching automobilists. The secretary of the Society for the Prevention of Cruelty to Animals thinks his society should have it. Is this on the ground that the automobilist is an animal or that automobiling prevents cruelty to animals? Anyway, so long as there seems to be no particular place for the money, suppose it is given to Cassie Chadwick—she'll need it before long.

A RECORD BREAKING YEAR WAS 1904



As was to have been expected from the rapid improvement of cars in power and speed qualities and increased rivalry and growing participation by American makers and owners in the racing and record breaking game, 1904 showed a practically complete revision of the record tables for both straightaway and track speeding. As a matter of fact, when the season closed there alone remained on the books as survivors of the accomplishments of 1903 four steam track records credited to J. L. Hedges and the White and six electric track records made by D. Chisholm and W. C. Baker with the Baker.

The battle for the records began early. Around New Year's day, some 2 or 3 weeks before the Ormond tournament, Charles Schmidt and Otto Nestman, equipped respectively with the middleweight Packard Gray Wolf and the light weight Stevens-Duryea skeleton, hied themselves to Florida's famous beach and after several days' waiting came away with the mile records for these classes—46% seconds for the middle weight and 57% seconds for the light weight. The former, by the way, stood also as a free-for-all world's record for the mile until W. K. Vanderbilt, Jr., lowered it to 39 seconds with his 90-horsepower Mercedes on the opening day of Ormond week. New records were set during the week for every distance, in which there was competition. To Mr. Vanderbilt belongs also the 5 miles in 3:31%; the 10 miles in 6:50; the 20 miles in 17:02; and the 50 miles in 40:49%. To H. L. Bowden and his 60-horsepower Mercedes was credited the 15 miles in 10:18 and also a tie for the world's kilometer record. The latter has been badly beaten abroad since then by both the Gobron-Brillie and the Darracq. The time scored by the latter gives encouragement to prophesy under favorable weather conditions at least 34 as next January's Ormond world's mile straightaway figure.

The only American road race to be run during the year was the first competition for the Vanderbilt cup, which took place over a ten-lap course on Long Island, October 8. It resulted in a victory for France and an almost unexpected good showing by American cars, George Heath piloting a Panhard to first place; Albert Clement, Jr., driving a Bayard-Clement second, and Herbert Lytle, Pope-Toledo, and Charles Schmidt, Packard, running third and fourth, respectively.

Track record breaking began at the Empire City course at Yonkers, N. Y., on July 16, when M. G. Bernin, driving W. Gould Brokaw's 40-horsepower Renault, set up new middle weight figures up to 10 miles, the mile being run in 59 seconds and the 10 miles in 10:13%.

Barney Oldfield began his Peerless record breaking career at Buffalo, August 15, when he lowered the heavy-weight figures for 25

miles to 26:42. The old record was a noted one, having been held by Fournier and his Mors for 3 years. The same day Charles Schmidt drove the Packard Gray Wolf the same distance in 28:32%, a new middle-weight record, beaten later, however, by Charles Gorndt at Cleveland, October 19, with the Winston Pup.

Two days later at the old Elkwood Park, near Long Branch, N. J., Harry Harkness set new track figures from 26 to 60 miles with his 60-horsepower Mercedes, of Boston to New York record and Mount Washington hill climb fame, covering 50 miles in 1:07:04% and 60 miles in 1:12:40%. The latter still stands.

At Cleveland, August 22, Earl Kiser scored the sensation of the year to date by driving Winton Bullet II an intermediate mile in 52% seconds, as against Barney Oldfield's world's record of 55 seconds with the same car.

The meet at Providence, R. I., on September 10, was a memorable one, resulting as in former years in a slaughter of the records. Charles Basle made world's records with H. L. Bowden's 100-horsepower Mercedes from 2 to 10 miles. He first set the 5-mile figure at 4:41% and again, in a 10-mile record run in 9:23%, lowered it to 4:37%. The 9 miles covered in 8:17 withstood the assaults of the record breakers until Barney Oldfield's whirlwind wind up of the year on a California track. This same day at Providence Frank Kulick put up new light-weight figures with the Ford up to 5 miles in 5:09% and Louis S. Ross with a special Stanley steamer made new records for that class up to 5 miles in

5:08%. He also set the 10-mile record at 10:20%.

At the Empire City meet on September 24 Joe Tracy, driving the 40-horsepower Brokaw Renault, lowered all of Bernin's records with the same car up to 10 miles in 10:01%.

The Cleveland track on October 24 was the scene of a notable Winton record breaking holocaust. On that day Earl Kiser captured all the free-for-all records from 16 to 25 miles with the Bullet, and Charles Gorndt those from 26 to 50 miles with the Pup. Gorndt, by the way, gathered to himself the middle-weight records from 16 to 25 miles. Kiser's time for 25 miles was 23:59 and Gorndt's for 50 miles was 55:42.

The defeat of Oldfield by Bernin, which occurred at Brighton Beach October 22, was a memorable one. Oldfield maintained the track was unsafe. A great four-cornered race, the most notable one in the history of track racing, was the result. It took place a week later on the Empire City course, October 29. It resulted in the brilliant victory of the American and the breaking of the Bowden Mercedes car's 10-mile record. In the first heat Sartori, driving A. G. Vanderbilt's 90-horsepower Fiat, beat Thery, the Bennett winner of 1904, who drove his victorious Richard-Brasier. The times were 9:45% and 10:00 from a standing start. Oldfield easily beat Bernin, 90-horsepower Brokaw Renault, in the second heat, the times being 9:20 and 9:44%. In the final Oldfield scored 9:12% to Sartori's 9:39%.

The same day Frank Kulick put up new light-weight records with the Ford car, running from :55% for the mile to 4:43% for 5 miles. A few days later, on the same track, on Election Day, November 8, Kulick reduced the light-weight mile again to 55 seconds flat, and still further lowered the 2 and 3-mile records, the latter being covered in 2:51.

Following his victory over Thery and the imported flyers Oldfield took the Green Dragon to Denver, and on November 5 set up new figures from 11 to 20 miles, the latter being run in 18:45%. The next day the coveted mile record was once more his, as he prophesied it would be, and which he declared he could have captured in the four-cornered race. He scored 51% for the mile, and also set new figures up to 8 miles in 7:13%. California was Barney's next jump. At Los Angeles, December 21, he got all records from 2 to 9 miles; and at Fresno, December 13, those from 11 to 15 and from 21 to 50 miles.

Other accomplishments having to do with speed, power and endurance may be briefly summarized:

On Thanksgiving day M. G. Bernin, driving the 90-horsepower Brokaw Renault, won the Eagle Rock hill-climb and lowered the up-grade

mile record of the hill from 1:36 $\frac{1}{4}$ to 1:20. In July Harry Harkness made the 8 $\frac{1}{2}$ -mile climb up Mount Washington in 24 $\frac{1}{2}$ seconds, a new record by over a minute from last year.

F. A. La Roche, between July 25 and August 9, mounted in a 15-horsepower Darracq and relieved by a companion, drove the car 3,040 miles, from New York to St. Louis, by way of Chicago and back by way of Pittsburg, in 15 days 2 hours, without once stopping his engine. This is the best ever.

B. B. Holcomb, in a Columbia, October 4 to 6, cut the Chicago to New York record to 58 hours 45 minutes, it having been cut to 72 hours 40 minutes a few weeks before by J. A. Ellis and A. G. Schmitt in an Apperson.

Charles Schmidt drove the Packard Gray Wolf on the Grosse Pointe track, Detroit, August 6-8, a thousand miles without stop of motor in 29:53:37 $\frac{1}{2}$, the world's record.

L. L. Whitman arrived in New York September 3 in an air-cooled Franklin, having covered the continent from San Francisco in 32 days 23 hours 20 minutes, practically cutting the former record in half.

June 19-20 Harry Harkness drove from Boston to New York in a 60-horsepower Mercedes, making the 250 miles in 6 hours 4 minutes.

FOURNIER WON

Paris, France, Dec. 24—Maurice Fournier and the Oldsmobile which started on a 3,200-mile trip through Europe several weeks ago arrived in Paris this week, and it is reported Fournier is now \$20,000 richer, having won that amount from a French sportsman who claimed the light American car could not complete the tour within a certain length of time. The distance really covered by the tourist in the American machine was nearly 3,750 miles, as wrong roads were often taken and sometimes the routes were in such bad condition that they could not be traveled.

GREEN'S EASY VICTORY

Capitalist's Pope-Toledo Car Captures the 100-Mile Track Race Run at Dallas, Texas

Dallas, Tex., Jan. 4—Special Telegram—The much announced 100-mile automobile race between machines owned in Texas was run over the track of the Dallas Jockey Club at the Texas state fair grounds on Monday, in presence of 3,000 spectators.

Had not the weather turned suddenly cold, with a piercing wind blowing, the attendance would have been more than doubled and the racing of the speediest character. As it was it was highly gratifying. The race was won by a Pope-Toledo machine owned and entered by President E. H. R. Green, of Texas Midland Railroad, and who also is a son of Mrs. Hetty Green of New York. The official time was 2 hours 6 minutes 45 $\frac{1}{2}$ seconds. The machine was driven by Ollie Savin, of Chicago, accompanied by Machinist McElroy, of Dallas. There were five entries as follows: Pope-Toledo, E. H. R. Green, Dallas; Peerless, Howard R. Hughes, Houston; Columbia, A. B. Wharton, Ft. Worth; Cadillac, George D. Schofield, Dallas; Franklin, E. H. R. Green, Dallas.

Wharton's Columbia gave Green's Pope-Toledo the best contest, the Columbia keeping pace neck and neck until the fifty-eighth mile, when a piece of machinery became deranged and a loss of time resulted. Perfect repairs could not be made and at the end of the seventieth mile the Columbia was withdrawn. Other machines were never dangerously in the race and Mr. Green's Pope-Toledo had a comparatively easy victory.

The race was conducted under rules of the

American Automobile Association. Mr. Green wired the manufacturer at Toledo of the manner in which the machine had won. The Pope-Toledo is a 24-horsepower car, weighing for racing 2,200 pounds. It is an exact duplicate of the Vanderbilt cup race car, which on October 8 on Long Island took third place.

Mr. Savin discussed the race thus: "This is my longest run, and of course the fastest I ever made for that distance. At the end of it I felt the effect in a measure in the nervous strain, but I could have ridden another hundred miles."

Mr. Green leaves January 10 for New York with the machine, to enter the Florida races. The officials of the race were: Referee, E. J. Kiest; judges, Henry Garrett, J. D. Scofield, J. G. Hunter; clerk, Eugene Corley; starter, G. R. Scruggs; timers, J. D. Bowles, T. C. Bell, Henry Menezer, H. T. Isenberg, George King, C. W. Hawkins, Edward Belstering, A. Templeton; racing board, George A. Titterington, chairman, S. D. Murray, George Scofield.

OPEN INTERNATIONAL RACE

Paris, France, Jan. 2—Special Cablegram—The Automobile Club of France has decided to promote a new motor car race to be known as the grand prize of the Automobile Club of France, and which is to be an open race without any restrictions as to the number of contestants from one country. The club's decision to organize such a race is the direct result of the complaints of many French manufacturers that the rule of the Bennett cup race restricting the number of starters of one nation to three is unfair to France, which has so many makers. The new race may be run this year at the same time the Bennett cup race is held. It was also resolved by the club that it will not compete for the cup in 1906 unless some of the regulations governing it are changed.

THE WORLD'S RECORDS THE BEGINNING OF 1905

FREE FOR ALL—TRACK

MILES	TIME	HOLDER	CAR	MEET
1	0:54*	Charles Basle	90-H. P. Mercedes	Providence Sept. 9, '04
2	1:46 2/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
3	2:39 4/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
4	3:35	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
5	4:29	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
6	5:22 2/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
7	6:15 4/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
8	7:09 1/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
9	8:04	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
10	9:12 3/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
11	10:15 3/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
12	11:11 3/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
13	12:08 3/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
14	13:05 3/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
15	14:03 3/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
16	15:01	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
17	16:57	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
18	18:53	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
19	17:49 4/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
20	18:45 2/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
21	19:49 4/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
22	20:47	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
23	21:44	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
24	22:41 3/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
25	23:38 3/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
30	28:38 2/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
35	33:35 4/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
40	38:31 4/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
45	43:30 1/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
50	48:40 1/5	Barney Oldfield	60-H. P. Peerless	L. Angeles Dec. 21, '04
55	1:07:04 2/5	H. S. Harkness	80-H. P. Mercedes	E'w'd, N.J., Aug. 18, '04
60	1:12:40 3/5	H. S. Harkness	80-H. P. Mercedes	E'w'd, N.J., Aug. 18, '04

*Intermediate mile—Oldfield, in Winton Bullet, made 55 seconds in separate mile trial—Kiser's :52 4/5 at Cleveland and Oldfield's :51 2/5 at Denver not accepted.

FREE-FOR-ALL—STRAIGHTAWAY

1	0:39	Vanderbilt, Jr.	90-H. P. Mercedes	Ormd, Fla. Jan. 27, '04
5	3:31 1/5	Vanderbilt, Jr.	90-H. P. Mercedes	Ormd, Fla. Jan. 29, '04
10	6:50	Vanderbilt, Jr.	90-H. P. Mercedes	Ormd, Fla. Jan. 30, '04
20	17:02	Vanderbilt, Jr.	90-H. P. Mercedes	Ormd, Fla. Jan. 30, '04
30	24:11	Vanderbilt, Jr.	90-H. P. Mercedes	Ormd, Fla. Jan. 30, '04
40	33:52 2/5	Vanderbilt, Jr.	90-H. P. Mercedes	Ormd, Fla. Jan. 30, '04
50	40:49 4/5	Vanderbilt, Jr.	90-H. P. Mercedes	Ormd, Fla. Jan. 30, '04
Kilo.	0:21 2/5	Baras	80-H. P. Darracq	Ostend, B. Nov. 14, '04

MIDDLE WEIGHT (881 to 1432 pounds) GASOLINE—TRACK

MILES	TIME	HOLDER	CAR	MEET
1	0:59*	M. G. Bernin	40-H. P. Renault	Empire, N. Y. July 18, '04
2	2:02	Carl Fisher	30-H. P. Premier	Chicago Oct. 1, '04
3	3:02	Joe Tracy	40-H. P. Renault	Empire, N. Y. Sept. 24, '04
4	4:01 3/5	Joe Tracy	40-H. P. Renault	Empire, N. Y. Sept. 24, '04
5	5:01	Joe Tracy	40-H. P. Renault	Empire, N. Y. Sept. 24, '04
6	6:01 2/5	Joe Tracy	40-H. P. Renault	Empire, N. Y. Sept. 24, '04
7	7:01 3/5	Joe Tracy	40-H. P. Renault	Empire, N. Y. Sept. 24, '04
8	8:02 1/5	Joe Tracy	40-H. P. Renault	Empire, N. Y. Sept. 24, '04
9	9:02 1/5	Joe Tracy	40-H. P. Renault	Empire, N. Y. Sept. 24, '04
10	10:01 2/5	Joe Tracy	40-H. P. Renault	Empire, N. Y. Sept. 24, '04

*Made in separate mile trial.

LIGHT WEIGHT (551 to 881 pounds) GASOLINE—TRACK

1	0:55*	Frank Kulick	20-H. P. Ford	Empire Track. Nov. 8, '04
2	1:54	Frank Kulick	20-H. P. Ford	Empire Track. Nov. 8, '04
3	2:51	Frank Kulick	20-H. P. Ford	Empire Track. Nov. 8, '04
4	3:48 2/5	Frank Kulick	20-H. P. Ford	Empire Track. Oct. 29, '04
5	4:43 3/5	Frank Kulick	20-H. P. Ford	Empire Track. Oct. 29, '04

*Intermediate mile.

STEAM—TRACK

1	0:57 4/5*	Louis S. Ross	10-H. P. Stanley	Providence. Sept. 10, '04
2	2:05 3/5	Louis S. Ross	10-H. P. Stanley	Providence. Sept. 10, '04
3	3:05 3/5	Louis S. Ross	10-H. P. Stanley	Providence. Sept. 10, '04
4	4:05 4/5	Louis S. Ross	10-H. P. Stanley	Providence. Sept. 10, '04
5	5:08 3/5	Louis S. Ross	10-H. P. Stanley	Providence. Sept. 10, '04
6	7:22 2/5	J. L. Hedges	White	Cleveland. Sept. 5, '03
7	8:39	J. L. Hedges	White	Cleveland. Sept. 5, '03
8	9:51	J. L. Hedges	White	Cleveland. Sept. 5, '03
9	11:05 1/5	J. L. Hedges	White	Cleveland. Sept. 5, '03
10	12:20 1/5	Louis S. Ross	10-H. P. Stanley	Providence. Sept. 10, '04

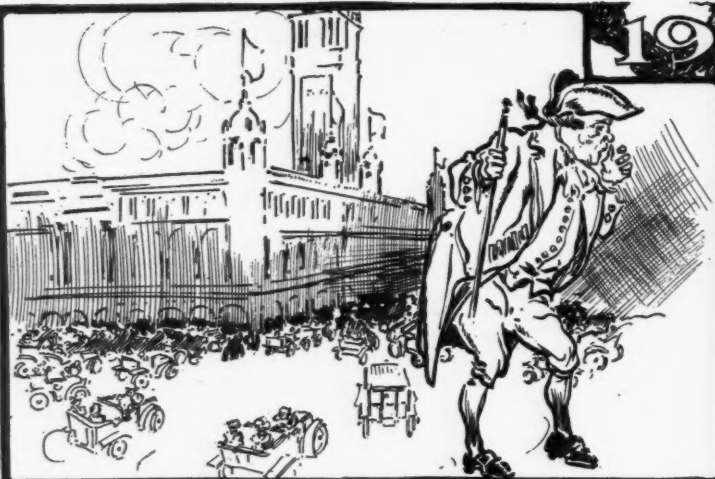
*Intermediate mile of another race—Time of first mile, 1:05 1/5.

ELECTRIC—TRACK

1	1:13 3/5*	D. Chisholm	Paker	Cleveland. Sept. 5, '03
2	2:35 2/5	D. Chisholm	Baker	Cleveland. Sept. 5, '03
3	3:53	D. Chisholm	Baker	Cleveland. Sept. 5, '03
4	5:11 1/5	D. Chisholm	Baker	Cleveland. Sept. 5, '03
5	6:29 3/5	D. Chisholm	Baker	Cleveland. Sept. 5, '03
10	17:58	W. C. Baker	Baker	Detroit. Oct. 24, '02

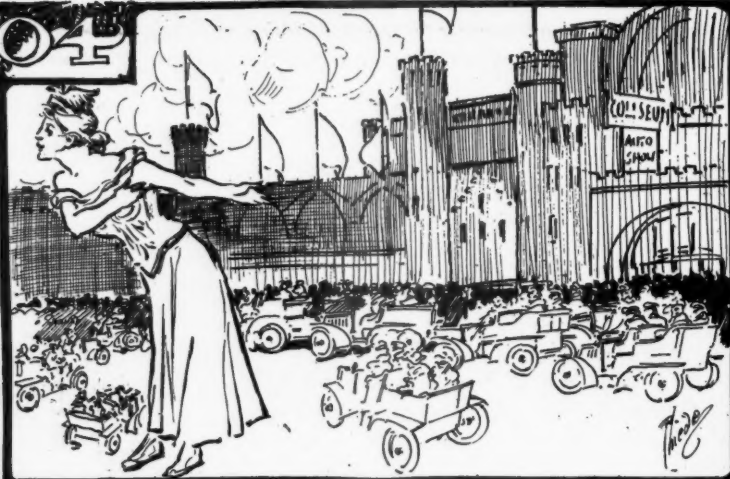
*Intermediate mile—First mile made in 1:21 4/5.

1904



JANUARY

Fourth annual automobile show in Madison Square Garden breaks all American show records in size, extent and commercial results.
Packard Gray Wolf reduces world's voiture legere class mile record to 46.25 seconds on Ormond Beach, Fla.
Brownlow good roads bill introduced in Congress.
Star feature of second annual Ormond beach tournament in Florida is reducing of world's mile straightaway record to 39 seconds by W. K. Vanderbilt, Jr., in a 90-horsepower Mercedes.
Philadelphia holds its local show.



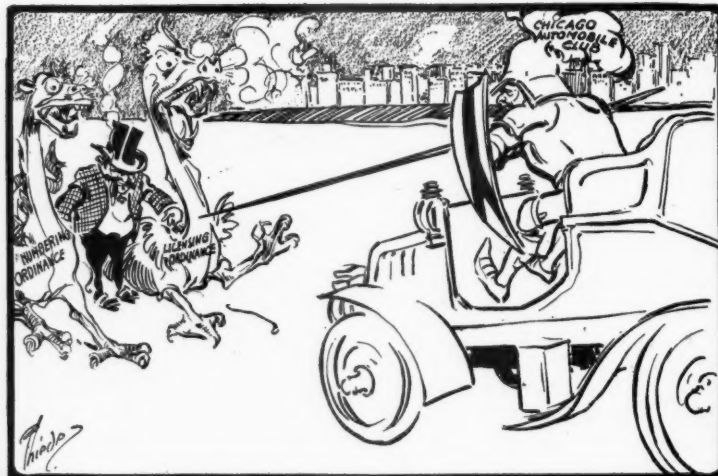
FEBRUARY

Annual automobile show in Coliseum at Chicago eclipses all former exhibitions and gives New York show a close run for supremacy.
New York Appellate court upholds Bailey law.
Chicago Judge, passing on Banker case, declares license law illegal.
Windsor T. White elected president of N. A. A. M., vice Milton J. Badlong, resigned.
Detroiters have prosperous local show.
Harlan W. Whipple elected president of the A. A. A.
Big English show held in Crystal Palace, London.
First exclusive motor boat show held in New York.



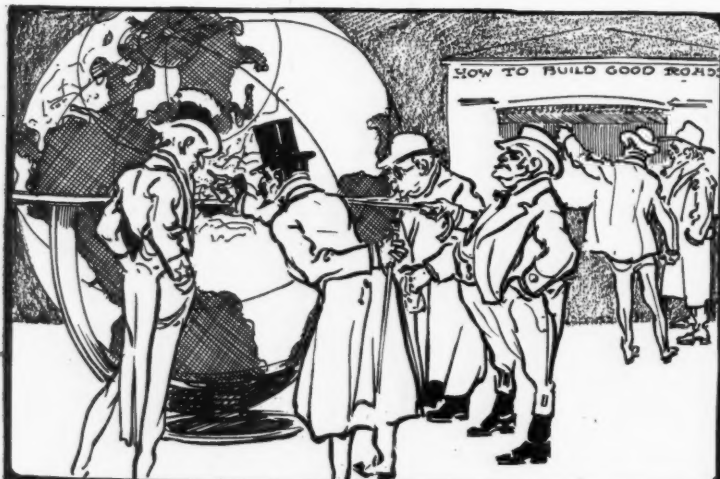
MARCH

Motor boats supreme at Sportsmen's show at Madison Square garden, Cleveland, Boston, Buffalo, Rochester and Washington enjoy splendid local automobile exhibitions.
A. R. Partridge appointed chairman of A. A. A. racing committee.
French motorists win government sanction for running of Bennett cup race eliminating trial on road.
Investigation of Virginia Beach as a possible motor race tournament place proves disappointing.
Transportation Club, of New York, honors automobilists at its banquet.
Rhode Island presented with an 8-mile speed limit by legislature.



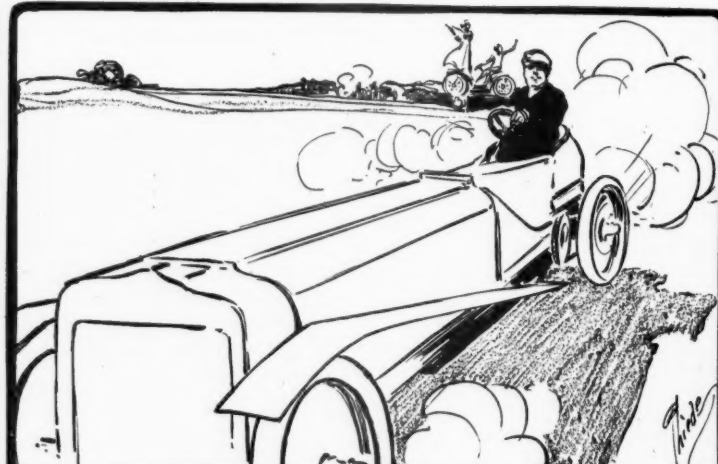
APRIL

Chicago Automobile Club begins fight against numbering and licensing ordinances.
The Automobile Club of America conducts a service test of commercial automobiles in New York, seventeen cars taking part.
Much desired consolidation of the American Motor League and the American Automobile Association into the American Motor Association projected and formulated.
Factory of Cadillac company burned at Detroit.
Excellent sport and close competition in Boston's grade climbing contest on Commonwealth bill, two French cars gaining chief laurels.



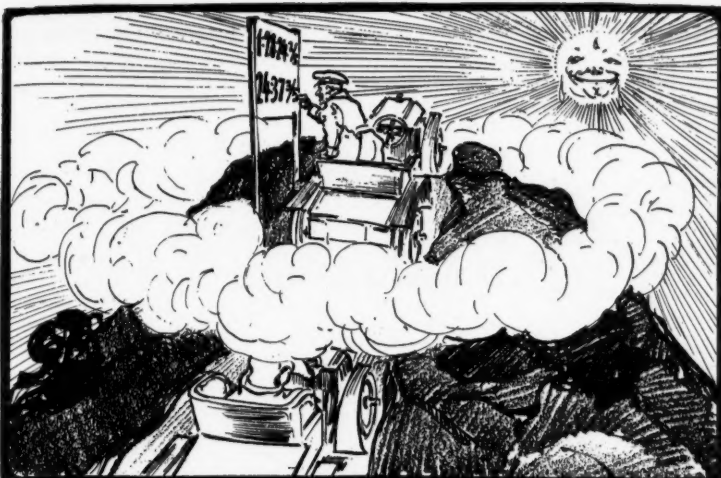
MAY

International good roads congress held at St. Louis.
The A. C. A. receives three entries for positions on American Bennett cup race team, a Winton, Peerless and Christie. "Elimination" tests result in squabble and abandonment of American representation in international contest.
Two Wolseleys and a Napier selected to represent England in Bennett cup race.
Eliminating race in France results in a Richard-Brasier, a Mors and a Turcat-Mery being chosen to represent France in Bennett cup race.
A. C. A. New York-Gettysburg tour fizzles.



JUNE

Therey on a Richard-Brasier wins the Bennett cup race for France; Jenatzy on German Mercedes nearest competitor; nineteen cars, representing seven countries, in the race.
N. A. A. M. decides to control all local automobile shows.
Boston concludes postponed Decoration day race meet.
Much speed in Minneapolis hill climbing contest.
Rhode Islanders make tour of state.
A. A. A. politicians, by trying to give the A. M. L. the worst of the deal, cause failure of the almost completed consolidation of the two national organizations.



JULY

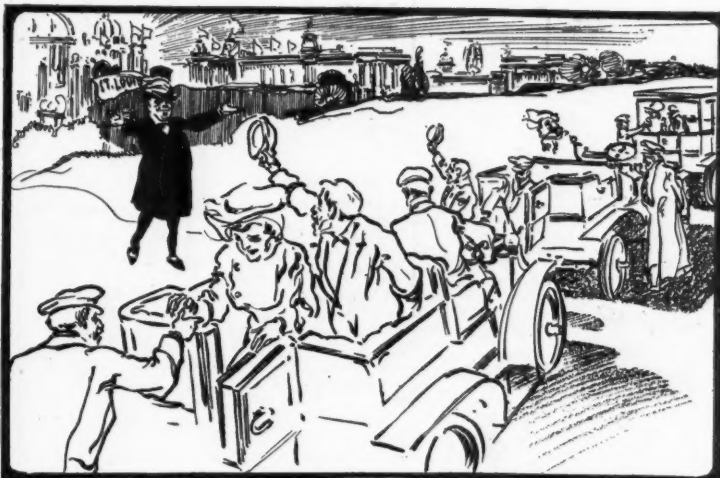
The Mount Washington "climb to the clouds" a great success from all points of view. Harkness, in a Mercedes, and Stanley, in a Stanley steamer, the star performers.

Federation of American Motorcyclists puts a score of motor cyclists through a severe line of tests lasting a week.

Deed of gift of Vanderbilt cup for international road race accepted by the American Automobile Association.

F. A. La Roche drives a Darracq from New York to St. Louis and return without stopping the motor.

Heath, in a Panhard, wins the Circuit des Ardennes in Belgium.

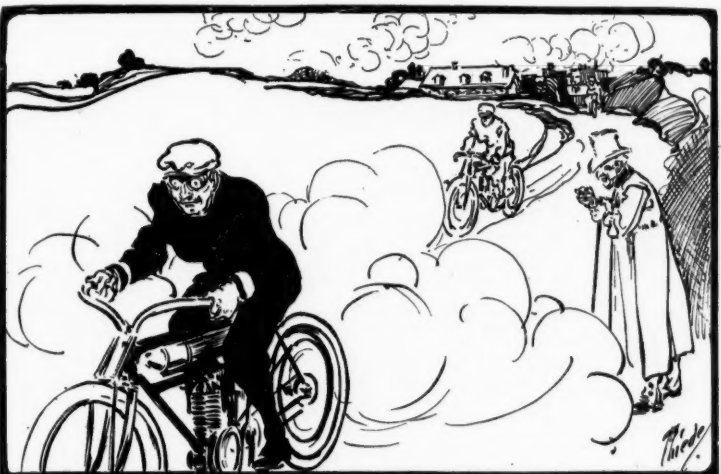


AUGUST

The big tour to the St. Louis world's fair ends in a great jubilation. L. L. Whitman cuts the Frisco-New York record in half by driving a Franklin car from the Golden Gate to Hell's Gate in 32 days, 23 hours, 20 minutes.

Week's motor tournament pulled off at Long Branch, N. J. Chicago Automobile Club secures an injunction preventing city from enforcing licensing ordinance.

Jerry Ellis and A. G. Schmitt, driving an Apperson car, cut Chicago-New York record to 72 hours 46 minutes, breaking Holcomb's Columbia record of the previous year by 3 hours 14 seconds.



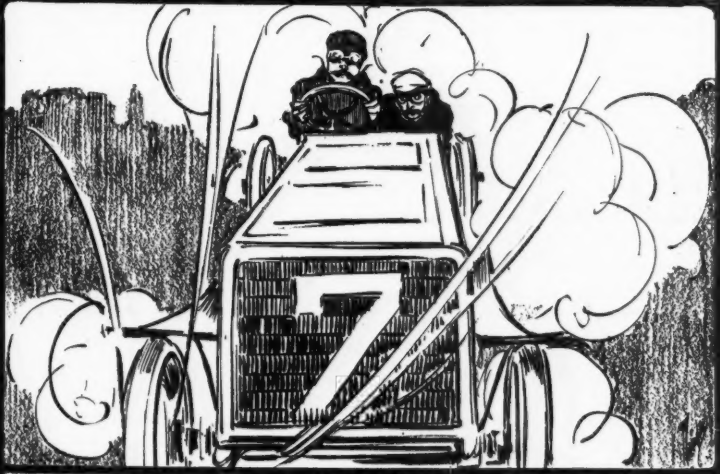
SEPTEMBER

Britishers have extensive motor cycle reliability trial. Track records swept by board in meet at Providence. Automobile Club of Great Britain and Ireland holds a reliability trial for small cars.

Four countries—United States, Germany, France and Italy—enter cars for Vanderbilt cup race.

Joe Tracy, in a Renault, wins 10-mile international race on Empire City track.

International motor cycle cup race in France almost a fizzle. Bert Holcomb, in a Columbia, regains Chicago-New York record.



OCTOBER

George Heath, in a Panhard, wins the Vanderbilt cup race on Long Island; Albert Clement, Rayard-Clement, second; Herbert Lytle, Pope-Toledo, third; Charles Schmidt, Packard Gray Wolf, fourth. Chicago Automobile Club lays down in its anti-numbering fight and adorns itself with tags.

Bernin, with a Renault, knocks Oldfield's crown off at Brighton Beach race meet.

Oldfield regains his crown by dragging in the dust on the Empire City track, Bernin, Renault; Sartori, Fiat, and Thery in the Bennett cup winning Richard-Brazier.



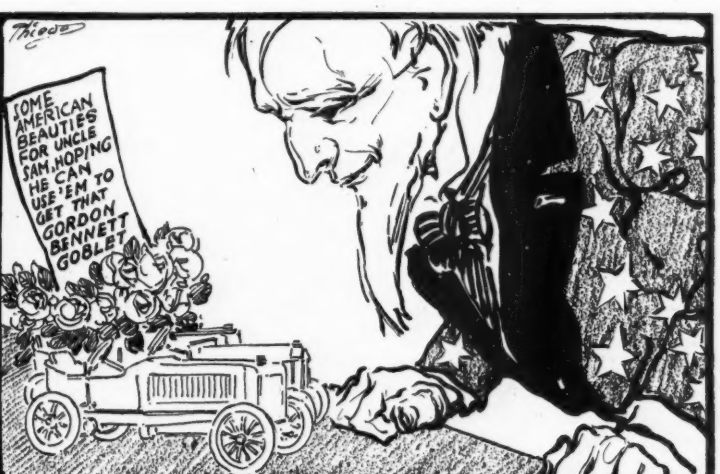
NOVEMBER

American Automobile Association accepts deed of gift of the Glidden cup for touring contests.

Kulick and the little Ford racer shock European racing cracks by administering decisive defeat at election day meet at Yonkers, N. Y.

Records in almost all classes cut in fourth annual Eagle Rock hill climb Thanksgiving day. Bernin, in Renault, makes fastest time, making the 12-percent grade mile in 1:20, while Webb Jay, White steamer, makes best American car time, 1:23 3-5.

Automobile Club of Germantown, Philadelphia, opens most elaborate club house in America.



DECEMBER

Col. Albert A. Pope, W. T. Muir and Harold E. Thomas, enter cars for positions on America's Bennett cup race team, the first two Pope-Toledos and the last a Locomobile.

Senator Morgan and officers of the Florida East Coast Automobile Association have tilt over management of the Ormond beach tournament.

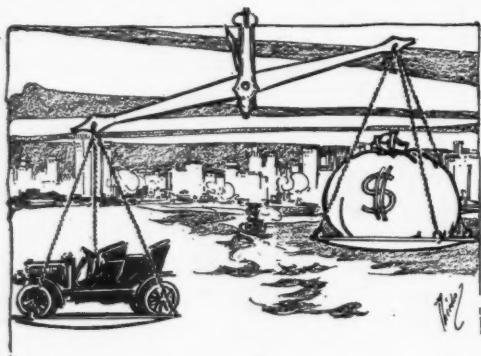
Senate committee passes favorably on Latimer good roads bill.

Oldfield stars at Pacific coast meet and hammers records down.

Paris show opens in usual burst of glory, is the greatest ever held but does not display great novelty or improvement in European cars.

New York Motor Club organized in metropolis to rival the A. C. A.

NO LIMIT TO NEW YORK FIELD



New York, N.Y., Jan. 1—As the result of the metropolitan trade of 1904 automobile dealers should certainly have been able to sit down to their Christmas turkeys in calm satisfaction for they could be paid for easily. Most of them felt themselves well able to add thereto the wetting of "wealthy-water" without the self-accusation of even undue holiday extravagance. At the head of some tables "mamma" blazed with a necklace of brilliants and the "boy" prattled of that dandy new little touring car "pop" gave him, and "daughter" of the electric runabout she in the eagerness of first possession had insisted on driving the machine through the fresh snow in the park that afternoon.

The holiday celebrations of New York retail tradesmen bear the ear marks of a prosperous year. Allegorically speaking, there has been turkey for all, "fizz" for many and "diamonds" for a few.

New York has held without dispute its place as the automobile selling metropolis. The various degrees of retail output have as a rule been dependent rather on the readiness and capacity of the maker rather than the shading in demand for the various brands of automobiles offered for sale. Trade has been largely proportionate to supply. About all the cars that could be got have been sold. The close of the season was little marked by hustle to get rid of overstock. To be sure there were some second-hand cars taken in exchange for new to be cleared from the floor. The second-hand trade, though, has been enormous, and dealers willing to make a bit of a sacrifice for ready cash could find prompt sale to the three or four big speculating brokers devoting themselves to this branch of the business. The metropolitan trade will start in on 1905 with clear sales and store rooms.

The out and out failures prophesied by the calamity howlers did not materialize. The few hard luck stories afloat came from representatives of comparatively small concerns, which were either unable or afraid to make the gamble to enter the metropolitan field with the fairly elaborate show room and garage equipment and the advertising display New York automobile selling demands. There is much "bluff" of the moderately "fixed" and newly well-to-do in New York life. This "bluff" naturally has its echo in business, especially when it comes to trade in such luxuries as automobiles. There are, of course, dealers whose bustle and inborn push have triumphed even with makes not so prominent over the advantages of attractive show rooms, storage stations and repair shops and a lavish outpouring of printer's ink. Lucky is the small maker to find such a man to handle

his goods; but the big business goes to the big garage and the big Saturday and Sunday "ads."

There have been degrees of success among the prominent makes, whose representatives have been amply equipped with display facilities and publicity capital. The degree of retail output among these leaders has been dependent entirely upon the size of their factory allotment. A notable and well-nigh unaccountable feature of the opening months of the season was the unpreparedness of some of the factories to supply cars in anywhere near sufficient quantities to meet the demand. To the early birds went the worms of patronage, and whatever preponderance in trade was gained by any one of them was due to the ability to make the immediate or more prompt deliveries. To just what concerns are here referred is well known to the trade through similar conditions existing in other trade centers as to their makes. New York dealers got their allotted apportionment of cars and suffered or prospered with their brother retailers in other cities as the case may be. The indications point to no such famine in the coming year. Cars will sell in New York on their relative merit and on the business ability and the capital behind their representatives.

On every hand is confidence in the outcome. Nowhere appears any fear on the part of the maker or the agent of the serious competition that faces the New York retail trade next year. All know that they will have far better cars than they had last year, and each believes he will have the best for the money anyhow. And one who has made a round of the factories and seen the 1905 models, as the writer has, will not wonder at this confidence.

The belief that the metropolitan reputation and popularity mean much for a car's vogue in other parts of the country seems as strong as ever among makers. Concerns already well established and equipped are preparing to abandon former more modest salesrooms, stations and shops, and are contracting for the erection or leasing of garages of great capacity and elaborate equipment. Other makers, who have hitherto left the handling of their product to agents, are now opening out-and-out New York branches. Many factories hitherto unrepresented here have already secured agents or will come to the show confident that the rush for New York agencies will afford them an ample range of choice without the need of pilgrimages to secure them or being obliged to say "yes" or "no" now to those already in search of selling franchises here.

During the past year trade has outgrown the popular Thirty-eighth street district. The latter, however, still has every foot of garage and salesroom space in demand. During 1904 there were a dozen automobile establishments scattered through the Upper Broadway district from Forty-eighth street to Sixtieth street. Before 1905 closes this stretch of the great business thoroughfare of the city bids fair to be given over very generally to the retail automobile trade along its entire length, with a thick sprinkling of motor car establishments for a block east and west on the side streets, thus dividing the town into two districts—the Rialto and the Park. A considerable

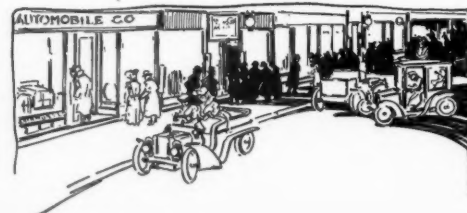
far uptown district is also in process of formation in Harlem.

The importing branch is a most important factor of the metropolitan trade. Its magnitude, the successes that have been scored in it and the confidence its members have in its future are evidenced by the courage and business measuring that this year have led to the giving of the "Importers' Automobile Salon" independent of and concurrent with the annual Madison Square Garden function. Preparations have been made by those importers of foreign cars, who have deemed it the better policy to abandon a side-by-side display with American cars, for an exclusively foreign exhibit, to spend a large amount of money in decorations and novel features to attract visitors and add to the effectiveness of this exposition of European motor cars. Representatives of most of the importing concerns visited this year's Paris show and placed orders to the limit of the American allotment of the cars they represent. They have confidence that the demand for the product will still continue among a large contingent of ultra-fashionables and others possessed of the European fad, who are indifferent as to the price, and believe that the pioneers in automobile manufacture still know best how to build them. The demand of last season certainly gives no ground that their confidence is misplaced or fear that the year has yet arrived when American cars will have the field practically to themselves.

Four of these importing concerns bear the reputation of having made undisputed successes with the brands they represent—one selling a prominent French, the best-known German and a home-built car of their own make; two concerns making a specialty of medium power and price French machines; and a very much alive firm of new comers dealing in the Italian product. These leaders in the importing trade seem, like the prominent American agencies, to have been limited in their sales only by the number of cars allotted them by their principals. Some of the competitive entanglements arising from differences of opinion over the necessity or desirability of Seddon patent licenses have been straightened out in favor of the latter. Stubborn competition among importers of several makes of the same brand, however, still continues. Several new American agencies of hitherto unimported makes have been established and the recent visits and annual show time invasion of European middlemen promise an increase in importing competition and a greater variety of foreign cars to be offered American buyers.

In the intervene of next year's metropolitan season, both as regards the home and the imported product, there is altogether much room for conjecture and argument.

There will be a remarkable improvement in the places of business of the principal concerns, added to which a general improvement in the selling forces has become evident.

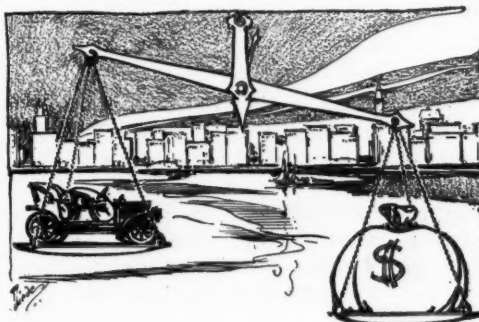


CHICAGO'S PROMISE OF GREATNESS

Chicago, Ill., Jan. 1.—Chicago is the greatest automobile market place west of New York city. It is not a manufacturing center, and never will be; but as a retail and as a distributing center, it has natural advantages which force it into a position of trade prominence which cannot be duplicated by any other city in the country.

It is peculiar both in its own trade and in the trade which devolves upon it on account of its relation with surrounding territory. It is a town of notions, but not of expensive fads. It has its buyers who buy automobiles because it "is the thing," but for each one of such buyers it has its hundreds of buyers who purchase automobiles to use for what they are useful; while on the wide acres that surround it are hundreds and thousands of American noblemen who are ready to accept the automobile as a successor to the horse—power unit for power unit, dollar for dollar.

Your dead swell French opera bus is not the reigning mode in that section of Autoland of which Chicago is the county seat, and the future success of the Chicago trade, both retail and distributing, does not depend upon the class of cars which are in vogue among the swells of the nation's metropolis. It rests upon the consistent, gradually increasing sale of motor cars that are built to increase the facilities of road locomotion and to supplant the horse. It is a trade of vehicles, not of hydro-carbon toys for the vanity-ignited rich. It has its foibles, its weaknesses and its crudities. It is somewhat overstocked with agents; it is besmirched with commissions, rake-offs, cut prices and extravagant exchanges of new cars for second-hand machines and cash. It needs reformation in selling methods; it needs an organization of dealers which will unite the selling interests into a firm body that is a unit in business principles—it needs a whole lot of things, but at the same time it is Chicago, the most promising selling center of the



country, with an inimitable automobile row on inimitable Michigan boulevard, and sooner or later the extravagances of its newest retail business will be re woven by that greatest of all weavers, Experience, into a sound, substantial, profitable trade which will control the automobile distribution of the central west.

As nearly as it is possible to estimate the amount of business transacted by the automobile dealers of Chicago during the season which has nominally closed, motor cars valued at over \$1,500,000 have been sold. Adding to this figure the amount of local trade in automobile sundries, repairs, clothing, and second-hand machines, it is a safe conclusion that the total amount of retail automobile business in Chicago for this season amounts to \$2,000,000.

Chicago as a manufacturing center is of comparatively little consequence in the automobile trade, but as a retail center and as a distributing wholesale center it is becoming one of the most important cities in the country. The volume of business transacted between local retail dealers and local buyers is as great in proportion to population and wealth as that of any city in the United States except New York.

Besides this trade there is a direct retail trade from surrounding territory which

amounts to about one-eighth of the actual local business, and it is becoming more apparent every day that this direct trade with people living within 100 miles of Chicago will, within the next few years, increase more rapidly than the business within the city limits.

Consequently all of the prominent manufacturers having branch retail stores in Chicago are making these stores also their western distributing centers, through which the business with agents in smaller cities and towns surrounding Chicago, and even in comparatively large cities of the farther west, is or will be handled.

The policy of automobile parts, fittings, and sundry manufacturers is similar, a great part of the prominent concerns in this line having branch distributing offices or sales agents here, through which most of the business west of Cleveland is handled.

There are in Chicago at the present time substantially 1,500 owners whose cars are licensed, and 500 owners whose vehicles do not as yet bear the aluminum tag which denotes the sanction of the city.

There are thus approximately 2,000 automobiles in everyday use in Chicago. Of these 875 are cars purchased this year of local dealers, representing a cost of \$1,424,000.

The bulk of these machines are gasoline cars, there having been sold this year in Chicago about twenty-five steam and sixty electric vehicles, the latter principally for conventional city use.

Also this aggregate of 1904 sales represents American products, with the exception of about 2 per cent of foreign-made cars, aggregating a cost of perhaps \$75,000, the retail price of each being much more than the average price of cars sold.

JERSEY DEALERS NOW HUSTLING

Jersey City, N. J., Jan. 1.—That automobile dealers in Hudson county failed to grasp the situation in the season past is now realized by most of them. Because of the closeness of Jersey City to New York, and the popular belief that the sale of the big cars to Jersey City buyers would be made from New York salesrooms, dealers did not think that cars high in price would be good agency propositions in the territory. The result was an ignoring of large cars and most energy in selling applied to cheaper cars. Dealers now realize that considerable profit was lost in playing the wrong pedal and that Hudson county offers a most fertile field for the selling of big cars. This will be the field of the business for the year at hand with a promising increase of dealers' profits.

As nearly as can be outlined, eighty cars were disposed of by one agency alone in Jersey City. Of this number more than half were Cadillacs. The Yale car sold to the extent of fifteen vehicles and eight Ramblers made their appearance during the season. One Winton quad and two regular early models and a number of second-hand cars completed the list. That there will be an important change in the business this year can be told from the zeal

with which dealers are clamoring for big car agencies. The Crescent Automobile Co. has taken on the Pope-Toledo and Autocar for next season and H. L. Livingstone, who was a dealer in unlicensed cars last year, has added the Winton and Columbia cars.

Despite the fact that Hudson county, with its beautiful boulevards, offers a splendid opportunity for the use of electric, few of this class of vehicles were sold last year and none of the dealers took especial pains to nourish this class of trade. The prospects are excellent, however, for an important revival in this end of the business and Agent Livingston will build a large addition to his garage this season to accommodate this class of business directly.

The Jersey City dealers were fortunate in keeping the price of storage up where there was a chance to make money and cars now in dead storage are bringing in \$10 a month each, while a higher rate obtains in the summer season. On the whole, the situation in Jersey City looks most promising, although all of the dealers affirm that they found the business worthy of the effort that they put into it and believe that it will pan out a large money winner immediately.

Those dealers possessing the agency for cars

in Passaic, Essex, Morris and Bergen counties, which include Paterson, Newark and the Oranges, among other important centers of the sport, suffered in common with dealers throughout the country in the failure of manufacturers to deliver cars when ordered and cancellations were many in the selling season for this reason.

The aggregate number of sales in Plainfield was thirty-five in the season now being closed, and of this number twenty were Oldsmobiles. Plainfield is made up mainly of commuters who work in New York and possess residences in the charming country hereabouts. The runabouts are used much as bicycles were, and owners ride in them to the railway station, leaving them at the stations during the day and again using them for home going at night. When such small use is received for a car it is not believed wise or expedient to tie up more money in a car than these machines sell for, hence their popularity. Electric cars continue in favor here, despite the fact that the hills are steep. The highways, however, are most excellent and such vehicles are used to great advantage. None of the local dealers have sewed up with any car for the coming season, preferring to wait the surprises the New York show will bring.

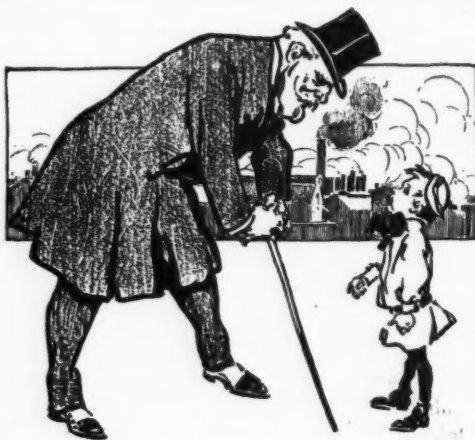
CLEVELAND A PRODUCER OF PARTS

Cleveland, O., Jan. 1.—Some 2 or 3 years ago Cleveland was looked upon as the greatest producer of automobiles in the country. It can probably still lay claim to that title so far as being the center of the material industry is concerned, but in the number of finished cars produced Cleveland was probably outstripped last year by more than one manufacturing center. A conservative estimate of outputs indicates that about 3,000 cars were built in Cleveland in 1904, and while other cities will show more than that, it is doubtful if the values of these machines would exceed the figures for the Cleveland output. Cleveland is essentially the center of production for the high-priced cars, while her material factories probably furnished some parts for nine-tenths of the automobiles built in this country, and if Akron were counted in the proportion would be even larger. Several circumstances tended to make Cleveland manufacturers follow a conservative policy at the beginning of the season last year. There had been several failures of weak concerns in this district a few months before, while the general indications of the possibility of a financial setback were stronger in this machinery and iron manufacturing center than they were in many other large cities, in addition to which some of the strongest moneyed interests in the city had recently experienced a setback that made bankers and financial men generally exceedingly dubious about new investments.

With the presidential campaign coming on, in addition to the other contingencies, the Cleveland manufacturers were inclined to play safe. At least two manufacturers had made plans for erecting new plants but held up until the situation cleared. Fortunately the impending financial crisis was tided over and the presidential election probably had little effect upon the business; at any event the Cleveland manufacturers sold all the cars they could build and on the whole enjoyed a satisfactory year.

For the coming season the situation is much brighter. From all quarters of the country come indications of continued prosperity and Cleveland manufacturers are planning to make up for lost time. Every one of the ten manufacturers here is figuring on increasing his output from 50 to 100 per cent, and the common report is that agents are placing orders earlier and in better quantities than ever before. Cleveland manufacturers almost without exception have increased their lines so as to cover a wider range of requirements, but at the same time the higher-priced cars still predominate. Probably 4,300 automobiles will be built here next season. Of these the lowest priced will be the little Baker electric runabout at \$850, while the other extreme is the huge Peerless limousine at \$6,000. Between these is a long list of electrics, steamers and gasolines, but there will be none of the latter below \$1,800, and the \$2,000 to \$3,000 car will be in the lead.

The White Sewing Machine Co. built about 800 White steamers last season, all of the well known touring car model, which has performed wonders in long distance touring events. These were distributed over all parts of the world, quite a number of them going to England and continental countries. The White company probably did as much foreign business as any manufacturer of large cars, due largely to its organization abroad and the prestige which it has enjoyed in the sewing machine and bicycle lines. For next season the company is planning



to build an even thousand machines. These are now coming through at the rate of six to eight a day and agents will be well stocked before the driving season opens.

The Winton Motor Carriage Co. had an output of about 900 cars last season. It laid plans early in the season for an output of 800 of the two-cylinder touring cars and all of these were built and sold long before the close of the season. Late in the summer it brought out the four-cylinder horizontal quad and an even hundred of these were disposed of. The change of the company from the horizontal to the vertical motor and the bringing out of a line of four cars instead of one were steps which have met with approbation. The 16-20 horsepower model C Winton is taking well. Sales Manager Shanks states that he will go to the New York show with actual deposits for practically the entire outputs of 1,000 of these cars. In fact, in a number of cases he has been obliged to scale down the orders of some of his agents, preferring to have the output well scattered over the entire country. Two hundred and fifty each will be the output of the 24-30 horsepower model A and the 40-50 horsepower model B. The company is pushing its output through with a confidence which it did not feel last year at this time. A few months ago the Winton company planned to establish branch stores in several of the large cities, where it did not have satisfactory representation, but the great interest displayed by the best agents in the country has made this step no longer desirable and it will not be carried out. The branch established in London a short time ago is sending in pleasing reports and the company looks for an excellent foreign business next spring.

The Peerless Motor Car Co. was one of those that played safe last season and its output was limited to about 275 cars, owing to its rather cramped quarters. The company had planned to erect a large factory a year ago, but the rather doubtful outlook caused it to hold over another year. Now the first building of the new plant is nearing completion and already the production of some parts has been started in the new building. When completed the new plant will give it triple its present output, although it is not planned to run up to the full output this year. The new line includes a 24-horsepower, a 35-horsepower and a 50-horsepower, the latter containing an engine similar to that used in the latest Green Dragon.

A concern that will be an important factor in the game this season is the Royal Motor Car Co. Last season the company started rather late with a car that was in the nature of an experiment, which, however, proved successful. The output

was something over 100 cars. This season the company has a four-cylinder proposition rated at 32-38 horsepower selling at \$3,000 without top and \$4,000 for limousine. Agencies have been closed in New York, Chicago, Philadelphia, Denver, St. Louis, Omaha, Minneapolis, Boston and other cities. An effort will be made to push the car in the New England states, as the company has never heretofore sold a car east of the Hudson river. It has just developed that Mr. Reese, president of the Cleveland Automobile Club, has been identified with the Royal company since it started business. This year he will take an active interest in the work of handling the output. He will have the agency for Ohio, including Cleveland, and will have associated with him four salesmen who are counted among the most successful and best known men in the local game. At the present writing he is not prepared to announce their names, however. He is not decided whether or not to open a downtown store, as from all indications this will not be necessary. The company has increased its shop equipment and has made arrangements to have work done outside, so that it will be prepared to take care of a largely increased demand.

The Baker Motor Vehicle Co. is still undecided whether or not it will erect a new factory for next season's business. It owns a fine tract of land and has plans all prepared so that it could erect a new building on very short notice should the demand warrant it. The company produced something over 200 electrics last year and is in shape to increase this output in its present quarters. The line will be practically the same as last year with the exception of a few minor improvements. A new model will also be added in the shape of a handsome depot wagon similar in mechanical construction to the electric surrey which made a hit last year.

The F. B. Stearns Co. expects to build 100 cars the coming season, all of the 35-horsepower four-cylinder model. The cars will be practically built to order, so far as finish and bodies are concerned, and the Stearns people will sell the output through personal solicitation rather than through agents.

The Federal Mfg. Co. built something over 200 cars last year to the order of eastern manufacturers. This year the newly-formed Cleveland Motor Car Co. will market the cars and the output will probably be larger than heretofore.

The Paul Gaeth Co. and the Brew & Hatcher Co. built something over fifty cars each and both are in the field this year with improved models and prospects of larger outputs.

It is now estimated that exactly 500 cars were added to Cleveland's automobile population the past year, according to the city clerk, who issues automobile licenses. He says the total number now carrying tags is 1,666, and that the number last year this date was 1,166. The police have kept a pretty close watch for untagged machines and few owners tried to do without, so this may be taken as a very fair estimate of the number of cars sold at retail in this city the past year. Possibly it is a trifle small, because many people own two or more cars, and if they are so inclined there is nothing to prevent them from using the same number on more than one machine. A great many people bought new machines and sold their old ones to people from out of town, while a number of the dealers took in second-

hand cars and shipped them to the surrounding towns. In this way, while a great many secondhand cars were sold in this market, they were shipped away and the large majority of machines bought here were new goods. Low-priced cars undoubtedly took the lead in the number of sales, particularly as a number of cars built by concerns that had failed were closed out early in the season, but the number of medium and high-priced cars doubtless averages up well with the business in other centers. A few imported cars were brought into Cleveland, but not many. The craze for foreign things is not so strong here as in the eastern cities, and those who are in a position to buy the high-priced machines have been made to appreciate the advantages of buying a car built right in their home city, where repairs can be taken care of without delays. The gasoline car, of course, has had the call, but the presence in this city of the leading exponents of the steam and electric systems has given these types an unusually high percentage of business. The number of retail dealers in the city did not increase materially last year. Two or three failures the year before made people somewhat wary of embarking in the game, but on the other hand practically every important dealer either moved into larger quarters or increased his facilities for doing business, and as a result Cleveland probably has the finest lot of large garages of any city in the country. An astonishingly large number of repair shops have sprung up both in the down-town section and the outlying districts of the city. Few of them have attempted to handle new cars, as it takes too much money and too large an organization, but they have sold many second-hand cars and have worked the repair game for all there is in it, and have made competition that has been rather serious for all concerned. The storing of vehicles has not been as good in Cleveland as in many cities. Cleveland is a city of homes; people live in houses and have their own barns, and a very large percentage of the owners take care of their own cars or have men to do the work on their own premises instead of in garages.

There has been a fairly good business done in renting cars, several concerns having made somewhat of a specialty in this part of the automobile trade. This has shown many the delights of motoring and it is expected that many of the 1904 renters will turn to actual owners during this year.

The principal local dealers are: The Ohio Oldsmobile Co., handling the Olds and Franklin and the launches made by the Mathews Boat Co.; T. C. Whitcomb, agent for the Rambler and Ford; the Ohio Motor Car Co., handling the Cadillac and Columbia lines of electrics and gasoline cars; the R. H. McGoon Motor Co., agents for the Pope-Toledo; the Automobile Garage & Repair Co., handling the Packard and Autocar, this concern being bought out by the Baker Motor Vehicle Co., which has given the agency for the Baker electrics to the Price Brothers Carriage Co.; the Chisholm & Phillips Automobilium Co., handling Peerless and Knox, and the Cleveland Motor Car Co., recently formed, handling the Cleveland cars.

Clarence M. Brockway succeeded Charles B. Shanks as manager of the local branch of the Winton Motor Carriage Co., and George S. Waite is manager of the White's city branch. B. T. and N. A. Quilling, who handled the Geneva car, have temporarily retired from business.

THE GROWTH



OF DETROIT

Detroit, Mich., Jan. 1—All over America the automobile year of 1904 showed enormous gains over any previous season in the history of the industry, but in spite of this marvelous increase the city of Detroit has managed to retain its position at the head of the column of automobile manufacturing cities, and today stands as the producer of more motor vehicles than any other city in America, or in the whole world, for that matter.

Half a dozen years ago the manufacture of automobiles was unknown in Detroit. A few pioneers like Henry Ford had experimented in the new horseless carriage field, but the results of their experiments looked crude, even to themselves, and the appearance on the streets of one of their noisy, and at that time odoriferous, machines was the signal for the gathering of a curious crowd, especially in the case of the too-frequent breakdown.

Detroit at that time boasted the possession of but three of four geniuses who were hard at work on the automobile proposition. The only one who has lived through the transitory period and seen his product become one of the standards of automobile excellence, sold and used all over the country, is Henry Ford, of the Ford Motor Car Co.

The Oldsmobile people were the first ones to start a real automobile factory in Detroit, where machines were turned out in very great numbers. Almost from the start they set a standard for rapid growth that was phenomenal, and soon, in point of numbers of machines produced and sold annually, were the largest manufacturers in the United States.

From this beginning the last few years have witnessed a wonderful development of the automobile industry in Detroit. Today there are seventeen manufacturers in the city, whose output is sold all over the world. The foreign sales alone of any of three firms which might be named, are greater than the total output of many of the other large manufacturers in the country. Counting the manufacture of accessories, such as motors, batteries, sparking devices, etc., there are more than thirty concerns which are directly interested in the automobile trade.

The enormous proportions to which the automobile business has grown in Detroit, when boiled down to cold, hard figures, seems almost incredulous.

Detroit automobile makers employed 6,000

working people in 1904. A city of 30,000 souls would be supported by the automobile factories alone were they to be grouped by themselves away from the other industries of Detroit. Automobile workmen are among the best paid of any of the skilled artisans. Few cities of like population in the United States would rank in point of monetary wealth, independence or intelligence with this automobile city, which has here been built on paper.

Those who regard the automobile as the rich man's "dangerous" toy do not stop to figure upon the school houses, the churches, the banks, the libraries, the butchers, the bakers and the candlestick makers which are builded by those same toys; which have been made possible by the hundreds of thousands of dollars which have been paid to the motor car manufacturers and which, in turn, have been handed over in very liberal amounts to the artisans whose skilled hands have produced them.

Detroiters have gone into the automobile business in a way that is astonishing to outsiders when they come to this city and ask to be shown some of its industries. Here they can be shown plants—and several of them, at that—which occupy whole blocks of ground. There is to-day invested in the automobile businesses of this city in plants, machinery and stock on hand for 1905 work, a trifle over \$5,000,000. This, it must be remembered too, does not represent anywhere near the capitalization of the various companies. It is simply the money actually invested for 1905 use.

The whole of America in 1904 made about 27,000 cars. Of this number Detroit easily heads the list with more than 9,000 machines—fully one-third of the whole output of all the cities on the continent!

The companies interested in the industry in this city received more than \$7,650,000 for their machines made during 1904. This is figuring the machines as worth on the average but \$850 each, which is a very low estimate, for from the less expensive cars at \$650 each the price runs up to \$4,000 and \$5,000 for the big cars of the Packard company. Think what this \$7,650,000 would do!

Then there is another angle which gives some idea of the immensity of this automobile business in Detroit. These 9,000 motor cars had a total horsepower, figured upon the basis of the horsepower of each make and the number of machines of that make that was produced, of more than 105,000! Inasmuch as nearly every machine in this city is underrated in the matter of power, it is probable that this figure is much greater.

These little motors that were produced in this city in 1904, if combined in power, would run all the factories in many of the manufacturing cities of this country. They would pull freight trains that would reach, if put on a single track on a continuous line, across whole states of this country! All the battleships of the American navy could be run and still have power left to equip a flotilla of torpedo boats!

Think of the procession these 9,000 cars would make if placed in line with an interval of but 10 feet between them. If placed in a single line they would make a column more than 35 miles long. If the 1904 product of Detroit alone was marshaled in column in Chicago, when the head of the line reached



Lake Forest the tail would not yet have passed the MOTOR AGE office on Michigan avenue, Chicago. Out the Lake Shore drive, through beautiful Evanston, into a bit of country road, then Highland Park, then passing Fort Sheridan, through more country road to Lake Forest this line would be worming its way while the last divisions were not yet formed in the city far to southward.

Or take New York city for the benefit of the army of MOTOR AGE readers in the great metropolis. Let the line form on Broadway at Forty-second street. Have the tail end reach down to the Battery, and let the column wind its way northward on Broadway to the hundred streets; pass them and finally cross the Bronx. Still northward it would be going at a fast rate of speed—provided the police were not looking—when those who were to form the rear had not yet breakfasted. On through Yonkers, up the beautiful Hudson river bank to quaint old Tarrytown, through it and beyond into the country once more it would go and when the leaders were on the sombre shadows of Sing Sing prison at Ossining, rear guard would not yet be in line!

Yes, Detroit made several automobiles in 1904.

Of course the Cadillac and the Oldsmobile companies headed the list with more than 3,000 machines each. The Cadillac company fell more than 1,000 behind in its orders because of the big fire which totally destroyed its plant last May at a time when it was flooded with orders and working 24 hours a day in an effort to partially at least catch up with the game. Work was at once begun on the new factory and it is one of the wonders of automobile history that in June, less than 6 weeks after the greatest fire that the industry has known, the company was turning out forty vehicles every 24 hours. This company employs just over 2,000 men and women—and the female side of the industry in no inconsiderable part now, though it is not generally known.

January 1, 1905, finds the company turning out twenty machines per day and May 15 will see sixty complete machines coming from the big plant during every 24 hours. In other words the capacity of the plant for 1905 has been increased just 50 per cent. This year it will produce pretty nearly everything in the automobile line from the little single-seated rig to the big four-cylinder, 30 horsepower car, which is just now being completed in the company's plant. This car will be the largest of any car in America unless some other company has something up its sleeve which has not yet been made public. Sales Manager Metzger stated yesterday that he now has orders for 200 of these cars and that the company has arranged to produce 300 during the year. Altogether the Cadillac com-

pany expects to produce 4,200 cars in 1905. Of these it now has orders for almost 3,000 and the shows have not yet begun.

Right with the Cadillac company in the matter of production is the Oldsmobile company. This company is going to make a specialty during the coming year of its touring cars and the delivery wagons which it put on the market last fall. These are two-cylinder cars and have proved so satisfactory that only minor changes will be made for 1905. Then, also, is the famous little runabout of this company to be considered. This was the original low-priced car and its production in 1905 will run into the thousands. Altogether the company at its Detroit factory will produce between 4,000 and 5,000 cars.

The company's officers state that they now have nearly the entire output booked, and the machines will go to pretty nearly every civilized country on the globe. To people who think that the automobile is the product of an effete civilization, known only to boulevards and talked about only in drawing rooms, a visit to their big plant would be a liberal education. They have photographs of their motor cars taken in all the places one ever heard of and some that he has not. Out on the Arizona deserts, far north in the Klondike, way east in Borneo and Sumatra, or with Japanese tea garden settings, or South African surroundings, in Madagascar, or in the Kremlin at Moscow—if you want to see a photograph of any particular locality on this terrestrial sphere, it is dollars to doughnuts they can show it to you and in the foreground will be one of their cars. To-day there are more Oldsmobiles in the world than any other two makes.

The Ford Motor Co. did a business that almost touched the \$2,000,000 mark last year and the officers say they will far exceed it during 1905. This company, which, because it was the first outside company to make a determined fight against the association, sprang into the limelight a couple of years ago and has succeeded in staying there since, through the merit of its product as the other local manufacturers now concede—something they would not do a year ago. In 1904 it produced in the neighborhood of 2,000 cars, most of which naturally were of the lighter type. For 1905 Henry Ford states it would get out 2,500 of the small cars and about 500 of the large ones.

By the way, Ford has now almost completed another very light and very high-powered car which he predicts will become as famous as his wonderful old 999, with which he last winter on the ice fixed a 39½ second mark, in spite of the fact that the car was almost 3 years old. The new car is to be a 60-horsepower car which will weigh but 1,300 pounds. Mr. Ford said that he will himself drive the car at Ormond. It will be set up by the time this story reaches MOTOR AGE subscribers, and local men expect some wonderful performances, for Ford has demon-

strated here that he has wonderful nerve. It is the lightest car for the power that was ever produced.

The Packard company will increase its production over last year and the volume of business already done convinces the officers that the plant must be run night and day during the busy season if they are sure of keeping up with their orders. The Northern company will also largely increase its product during the coming year, and if things go on as they promise the company will have to increase its facilities. The Blomstrom, the Wayne, the Wolverine, and the Reliance—all expect to largely increase their output over that of the year just closed.

Besides these dealers there are eight other manufacturers who are doing business on a smaller scale and whose output will number about 350 machines.

One new firm will be added to Detroit's list during the coming year and your correspondent has heard on reliable authority that the preliminary papers conveying a tract of ground for its use have already been signed. This is the Matheson company, which is coming from the east. This company will probably not make more than fifty or seventy-five cars, but as the cheapest car is a \$5,000, 30-horsepower affair, it is an important addition to the Detroit industry. Tom Cooper is to be the sales manager of the company.

Altogether Detroit's projected output for 1905—and in estimating it the MOTOR AGE correspondent has endeavored to get actual, not advertising, figures—will be close to 12,000 machines and the value will be more than \$10,000,000, figured on a basis of only \$850 each.

The state of Michigan, outside of Detroit, is rapidly coming to a place which entitles it to consideration also. At Lansing, at Kalamazoo, at Jackson, at Flint and one or two other towns, motor cars are being produced and for 1905 something more than 4,000 will be manufactured outside of Detroit. Of these Lansing will produce the largest number probably, though Jackson will be a very close competitor. R. E. Olds, formerly of the Oldsmobile company, will make 2,000 of his new Reo cars, it is stated, at his Lansing plant. He has gone into things on a big sale and is pushing the manufacture as fast as the plant will allow it. At Jackson both the Buick Motor Co. and the Jackson Automobile Co. have plants and here probably 1,200 to 1,500 more will be produced. The Michigan Motor Co. and the Kalamazoo Automobile Co. will be busy in the Celery city.

Michigan will thus have thirty manufacturers in the field during 1905. They will produce in the neighborhood of 16,000 machines and in the opinion of one of the best informed men in America, this will be at least 45 per cent of the total output of the entire country. Some even place it 60 per cent.



TWIN CITIES CONTROL NORTHWEST

Minneapolis, Minn., Jan. 1—After a season unapproached in the history of automobiling in the northwest the dealers of Minneapolis and St. Paul are now preparing for a trade in 1905 which is expected to tax their utmost resources. Up to the present time more orders for new cars to be delivered in the spring have been booked than had been contracted for up to April 1 of the 1904 season.

The development of the trade in Minnesota, the Dakotas, northern Iowa and Wisconsin, and Montana has been little short of wonderful during the past year. Carloads of machines have been sold from every principal distributing point of the northwest, and the houses in the Twin Cities handling the standard lines of cars have been unable to keep more than one demonstrating car in stock since the beginning of the spring.

From early in April the season continued up to Christmas day. A backward winter, excellent roads and mild weather kept automobiles on the road up to December 24, and the result of this prolonged season has been to strengthen the intentions of the prospective buyers of next spring and send many of them into the market for immediate orders.

This is particularly noticeable in the country trade, which has within the past 2 years become one of the strongest features in the development of the local houses. Country buyers have come into Minneapolis and St. Paul in great numbers during the past 5 or 6 weeks and the local houses are the gainers by scores of orders booked for immediate or early spring delivery.

With perfect roads throughout the state dozens of cars have been driven out of the local salesrooms and sent over the highways to the country towns where their buyers reside. Many of these cars are the 1904 models or standard makes, which are being turned in to the houses by owners who are determined to possess 1905 models for spring use.

The change from old cars to new will be unexpectedly strong next spring. Dealers state that the radical changes which have been made in the models for the coming year are finding great favor with the automobilists who are in a position to take advantage of the improvements, and the new cars sold will be in greater numbers than in any previous year.

The year just closing has been in every way satisfactory to the dealers who cover the northwest. The cry for immediate delivery, which made life unbearable for the dealers in the early spring and which completely exhausted the available supply in nearly all lines before the roads were fairly open, has been followed by a season in which sales have kept up without abatement.

The northwest has been prosperous during the past year or two and prosperity has made automobile buyers of all. Although the greatest trade has been on the medium-priced machine of good horsepower, the big touring car has been far more popular than was expected. The firms which have handled the strongest lines of big cars have had an excellent trade, and the Twin Cities can show scores of 24-horsepower and larger machines in use at present.

Indications are that the trade of the 1905 season will be of a higher grade than ever before. The cry at present is for a multi-cylinder car of good strength, and many of the



orders which are being placed now are for the largest cars of 1905.

The country trade is becoming more exacting than ever before and the price question will give way this season to the demand for a strong, serviceable car of large power. The local houses are preparing to pay more attention than ever before to the country sales. Many of the big dealers have been making personal trips through the best Minnesota towns during the past few weeks, and arranging for the covering of the entire territory with their lines as soon as the season opens.

Minneapolis and St. Paul are in an unusual position. They command practically the entire trade of the great middle northwest, extending clear to Montana. Railroad facilities are such that the two cities become the natural shipping and distributing point for this entire country. The farmers are prosperous and the roads are becoming better every day. As a result the two large cities will profit directly from the big country trade, at least until the minor towns become important enough to hold separate agencies.

The year has been a busy one in the local field. The firms which went into the season prepared to handle the immediate demand for cars have, of course, taken the bulk of the sales. The year has added many new agencies to the field, however, and additional cars are now being taken on in great numbers. New agencies are being opened, new buildings erected and new cars introduced to the local field.

As a result the coming year will see keener competition than ever before. The change from the rear entrance to the side entrance tonneau will mean the changing of many cars. Old cars are being turned in to the dealers now in great numbers, to be sold and the proceeds applied on new cars.

And these old cars are being sold. Many of them go to the country, some to the cities. Last week an instance of the country buyer's position was shown in a St. Paul garage. A man from a prosperous Minnesota town walked in with a 10-gallon gasoline can in one hand, a big bundle in the other and a warm fur coat on his back. He unrolled the bundle to disclose a laprobe and a pair of heavy gauntlets, and he informed the surprised salesman that he had come to buy a car.

"I don't know anything about automobiles," he said, "but I figured that now would be the right time to get a good 1904 car secondhand, and it's up to you to show me the car." And before the afternoon was over the man was started for home in his own automobile, with a chauffeur in charge.

This ready disposition of the old cars will mean that hundreds of new machines will be put out here during the summer. The demand for good cars in the cities has resulted in the complete success of the well established lines, and these cars are now responsible for the avalanche of early orders.

The Minneapolis houses have greatly outgrown their quarters and have enlarged during the past season in a wonderful manner. The Pence Automobile Co. opened the season in a new four-story brick building, which is now none too large. G. W. Caplin has built a large garage and salesroom; the Northwestern Motor Vehicle Co. is in a new and especially-constructed building; the Walker & Winston agency is just moving into a new five-story brick building built for it near the Pence establishment on Hennepin avenue.

The Haynes Automobile Co. was forced out of its old location for lack of room; E. H. Moulton, Jr., has more than doubled his former space during the year; and other agencies have either taken enlarged space or made arrangements for greatly increased facilities in the spring.

In St. Paul the growth of the business has been as great. The C. P. Joy Automobile Co. moved into a two-story building of good size early in the year and is now preparing to double its space in the spring. The location of the new building has not yet been announced. L. H. Fawkes, of Minneapolis, has opened a new Rambler garage of big capacity, in charge of J. S. Spargo; the Pence Automobile Co., of Minneapolis, is preparing to open a big St. Paul branch, to carry its complete line, and it is probable that a new building will be erected.

A. C. Bennett, of Minneapolis, agent for the Winton, is also planning to enter St. Paul, where the Winton is not now represented, and will establish a branch house there.

The local dealers are making no plans for a show of any kind this year. It is impossible to secure the aid of the manufacturers for such an enterprise, and the dealers declare that they cannot spare the time nor the models to make any sort of an exhibition. Furthermore, it is of no practical value here.

During the past year the hill-climbing contests and race meets which have been held have been highly satisfactory, and they will be repeated this year, with more elaborate arrangements. The Kenwood hill-climbing contest has become a fixed affair in the Twin Cities and the success of the race meets this year makes it almost certain that big meets will be held in 1905, with some big racing machines entered.

The latest move on the part of the automobile owners of the two big cities is toward a public highway between them, which will furnish a quick and good means of communication. Though the business centers of Minneapolis and St. Paul are only about 11 miles apart and the city limits join, the highways connecting the two are in a deplorable condition.

The Commercial clubs of the two cities have now taken the matter up and an agitation has been started for the paving of University avenue, the shortest road, through its entire length. The avenue is an almost straight highway from one city to the other. At present it is paved for only about 2 miles from each end.

TENNESSEE PEOPLE WAKING UP



Nashville, Tenn., Jan. 1—The year 1904 has been marked by an increase of interest in the automobile game all through Tennessee which has been little short of marvelous. The increase in the number of machines used throughout the state has not been less than 100 per cent. In the cities and in the larger rural towns people with money almost fell over each other in their efforts to secure the few machines which came into the state early in the year. And the demand continued good all through the summer and into the late fall.

The past season has been Nashville's first real year in the automobile trade. Several years ago an electric runabout attracted some attention on the streets and in 1903 a few light cars were purchased by the wealthier citizens, but not until the past summer did the fever become widespread. Since that time several firms have turned their attention to dealing in and repairing cars, and many makes of many styles are now represented here.

A year ago Nashville had about twenty cars; today there are seventy-nine registered at the recorder's office, and it is probable several more have not yet received their numbers. It is believed that this number will be tripled in another 12 months.

The season has been a profitable one for but few dealers. The latter complain that they have lost business by the unfairness of manufacturers, who have sold single machines direct to many customers under the pretext of establishing agencies. There are a dozen cases where parties here have bought cars at the regular agents' discount without any idea of selling the cars and with no intention of working in the interests of the make. This has, of course, affected the trade of the dealers.

There are at present two garages here, both of which do a good storage and repair business. Another is to be completed by January 10 and will have capacity for forty cars. Many owners prefer to look after their own cars, but they are fast learning to patronize the garages.

Perhaps the most popular car in this section is the Olds runabout, though older owners are discarding this type for four-seated cars to a large extent. The Olds agent sold ten cars during the past year, and there are more of this make on the streets than any other. The White steamer is next popular in point of number. The White took the popular fancy here, and ten touring cars of the 1904 pattern were sold during the past season. Four orders for the 1905 model have been placed for future delivery, and one of these is already on the streets.

The St. Louis, which is handled here by Duncan Dorris, is another popular make, and while only four were sold from this office during the season, the indications are promising for a good trade next season.

In view of the comparatively small number of cars in Nashville, it is interesting to show the variety of makes represented, and this more than anything else shows how cars have been

sold direct. In most instances only one car of the make named is owned here, and is not represented by any agent. The makes represented are as follows: Locomobile steamer, Mobile, Crest, Olds, Rambler, Toledo steamer, Pope-Toledo, Packard, McKay-Whitney, St. Louis, Marmon, Wayne, Pope-Hartford, Winton, Pierce, Cadillac, Ford, Autocar, White, Studebaker electric, Eldredge, Pungs-Finch, Orient, Overland, Glide and Holly.

The steam car has been especially popular, and to a large extent this has been caused by the efforts of the agent, the Southern Automobile Co. John T. Landis, a prominent capitalist, is at the head of the company, and as he is considered the pioneer of the motor fad in Nashville, his opinion has weight with prospective buyers. Mr. Landis is the principal promoter of all the motor car events which take place here, and is responsible for much of the enthusiasm. He owned the first car which ever ran on the streets of Nashville, a Locomobile of the old style, and since that time has taken up six different cars for his own use.

The greater number of machines in use here are one-cylinder gasoline cars, though the later purchasers are turning toward two and four-cylinder cars. Air-cooling is represented only by the Marmon, but is proving popular. Side entrance tonneaus were introduced with this car also, and many purchasers will probably specify this equipment next season. The electric car is decidedly in the minority, only one—a Studebaker runabout—being represented. This is owned by the proprietor of a big apartment house, who has an electric plant at his disposal.

The city authorities have given little trouble to the owners of cars. After a fight in the city council to regulate speed, a number of the officials were taken for a ride with the owners of cars and shown how readily the "dangerous" machines could be steered and stopped. After that there was no trouble, and the city has now a speed limit of 20 miles, surely a reasonable one. The ordinance requiring numbers on cars met with no opposition.

The exceptional weather of the past season has kept most of the cars on the street up to this time, and but few will be retired during the winter. Middle Tennessee's admirable roads have made Nashville an ideal city for motor cars, and long excursions through the state are an every-day occurrence. Many owners took their cars to St. Louis and return during the summer and found no trouble until they crossed the line into other states. The automobile will, however, be one means of doing much toward road improvement.

Prospects for next year are bright. A number of dealers announce their intention of adding other makes to their lines, and believe that more than a hundred cars will be sold. The principal demand is for a moderately priced car, though nothing cheap is wanted. Up to this time no imported car has been sold in Nashville.

In Memphis, as in all other cities of the middle south, the dealers were hampered in their efforts to make sales by their absolute inability to fill orders. Manufacturers delayed making shipments until May, June and in some cases July, and these delays killed many a good sale. By the time the local market was well supplied with cars, many men with enough money to buy them had left for their summer

vacations, others had lost interest, and business was sadly demoralized. The trade throughout the season, however, was fairly good. The number of cars now in the city is today almost exactly double what it was a year ago, and the prospect for another doubling of the number in the year 1905 is good.

Interest in automobiling in Memphis is decidedly on the boom. In spite of the handicap of many badly kept city streets and wretched rural roads, a score of men are in the market for new cars, and the dealers are all encouraged by the prospects for the new year.

Not a single automobile is in use in Memphis at the present time for commercial purposes. The only cars used are pleasure cars, and, as the poor condition of the country roads in west Tennessee make touring almost out of the question, most of these cars are small and inexpensive ones. The new year will undoubtedly see the coming of the automobile delivery wagon, however, and this will undoubtedly be followed by the automobile truck.

The fall of 1904 saw the forming of a company in Memphis to manufacture automobiles. A stock company was organized, contracts let for a factory, and a trial machine constructed. If this machine proves a success, Memphis may some day become known as an automobile manufacturing center. The new car will be provided with a Pilcher steam engine, for which the inventor claims great power and efficiency.

DENVER HAS 500 CARS

Denver, Colo., Jan. 1—Denver is making rapid strides in becoming an automobile center. There are not yet so many users of motor cars as in the principal cities of the east, but inasmuch as they became known to the citizens of this town several years after they were being used elsewhere, it is a credit to the Colorado capital that there are now about 500 licensed automobiles within its limits. During the year just ended the trade has been good and the dealers seem well satisfied, as they disposed of about 200 cars, valued at about \$250,000, and more of them would have been sold had they been on hand or had the manufacturers been able to supply them. The majority of cars sold were of the popular price style, although a few high-priced machines were also disposed of. The dealers think the annual automobile race meet has helped the trade to a great extent, as it gave people the automobile fever and resulted in purchases which may not have happened or may have been delayed. All of the cars sold by the local agents did not stay in the city; in fact, fully 25 per cent went to out of town motorists. This condition of affairs is quite natural, as outside of Colorado Springs and Pueblo there are hardly any other localities in the state where a dealer in automobiles can be found. The good roads in and around Denver have also helped in making motoring popular and the local club deserves praise for its good work, both for better roads and the promulgation of better laws. The prospects for the year 1905 are good and all the dealers ask is that the manufacturers do not delay in sending new cars and plenty of them.



BUFFALO IS A BIG MOTORING TOWN

Buffalo, N. Y., Jan. 1—The motoring season of 1904, of which the local automobile show last March was the opening event, brought satisfactory progress both to the local tradesmen and the local enthusiasts. Western New York towns participated in the general advance of trade and sport.

The 1904 show attracted a lot of attention. As far as exhibits went it was far and away ahead of its predecessors and it was evident that Buffalonians were taking much more interest in motors than had been the case the year before. That evidence was borne out during the year by increased sales of cars and a marked increase in the membership of the Automobile Club of Buffalo. The general situation at the close of the season shows the enlarged popularity of the motor car in many ways. Several fine new automobile stores have been opened or are about to open, the number of garages has increased and dealers are planning to add to their lines of cars for next year. Not only that, but the two principal local automobile factories, those of the George N. Pierce Co. and the E. R. Thomas Motor Co., are making for the coming season a larger number of cars of higher power than ever before.

One of the principal lessons of the season just closed is seen alike by those whose interest is in the sport and by those who are engaged in the automobile business, that touring cars of high power are growing in favor here. The change in sentiment was marked during the year. All the dealers noticed it and while it is admitted that there will be a big demand the coming season for runabouts and the smaller tonneau cars, the tradesmen know that the big car with comparatively high power will be "the thing."

To deal first with the season's record for the sport of automobiling. The show last March enlivened the Automobile Club of Buffalo and through the efforts of several members, especially A. H. Knoll, then vice-president, and F. J. Wagner, secretary, resulted in a big increase in the membership of the organization. Ezra Kirk and a host of others from out of town can testify that they paid five good dollars each into the club treasury at the solicitation of "Wag."

It was evident in March that the number of motorists in town was to be increased by a large number during the year. That proved the case. The club began its activity early in the summer, although operations were delayed for a time owing to the lateness of the spring. The first event was a club parade through the streets of the city. The turnout was large and the run afterwards to Depew was one of the most delightful events of the year. Later a club run to Rochester was taken by a big party. It may be said that during last season there was some sentiment among the club's officers against club runs and for that reason fewer were held than had been planned. Those members who participated in the runs, however, gave only one verdict, that the runs were successful and that there should be more of them.

The advent of the St. Louis tourists was another main incident of the season. The Buffalo club entertained the visitors, who remained here over Sunday, and the public was mightily interested in the reports of the run



both before the drivers reached Buffalo and after they left. Then came the race meeting in August, the first real big race meeting that Buffalo had had. Oldfield, Kulick, Winchester, Graham and Lytle gave the Buffalo public more thrills to a minute than it had experienced before in a long time and motor racing became at once a favorite sport here. The meeting suffered financially because of rain on the second day, but a big crowd witnessed the sport on the next Monday. The result was on the favorable side of the ledger for the Buffalo Racing Association.

After that the members of the local club waited for the advent of winter and since cold weather made motoring impossible except for the hardy several entertainments have been conducted at the club house.

Perhaps the most significant activity of Buffalo motorists during the year, however, was the movement toward a better motor vehicle law for New York state. President Hotchkiss, of the Automobile Club of Buffalo, drew the law, worked earnestly in connection with Senator H. W. Hill, of Buffalo, for its passage and finally was rewarded by seeing it go through the legislature. The law has proved a marked success. It has been taken as a model by other states and has had the effect of making motoring more popular than ever in this city and throughout the state. The Buffalo enthusiasts who worked for that law think it has gone far to add to the fame of Buffalo as a motoring town.

At the close of the year the Automobile Club of Buffalo finds itself in excellent condition. Its membership has increased by 150 to 450, making it the third largest club in the country. Its retiring president, W. H. Hotchkiss, has just been elected second vice-president of the A. A. A. Its new president, A. H. Knoll, is a director of the New York State Automobile Association. Its treasurer, Charles Clifton, is president of the Association of Licensed Automobile Manufacturers, and its secretary, Dai H. Lewis, is to be starter of the Ormond races.

On the club's books is a very satisfactory balance on the right side, while the organization is actively planning to move into better quarters, which will have the advantages of a cafe. Meanwhile an active campaign to increase the membership is being carried on with success and the club bids fair to become one of the leading social-recreation clubs.

The show, the race meet and the visit of the St. Louis tourists already mentioned had an effect, of course, on the automobile trade in this city and in nearby towns. The dealers went through the exhibition in March with constantly growing enthusiasm over the outlook. Many big prophecies were made as to the number of cars which would be sold in this

city during the summer. That the sales were satisfactory is generally admitted.

In reviewing the trade conditions of the year it may be said that Buffalo is well known for its many miles of asphalt pavement. The city is level, there being no grade worthy the name of hill in the whole town. The surrounding country for many miles in some directions is almost as level, thus making possible many delightful tours even for those who have not the time or the money to take long motor jaunts. Buffalo's police have pursued, since the organization of the local club, a sane and decent policy toward automobiling and the state law, as has been said, is favorable to the development of the sport.

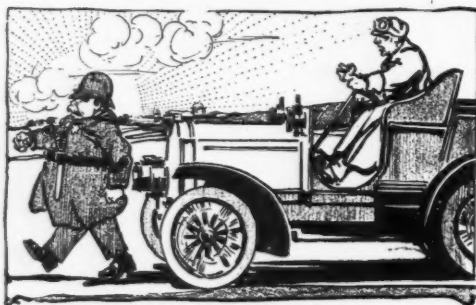
All these things tend to the success of the retail dealer. The drawbacks noted this year were in the business itself and were not confined to the local situation. Dealers generally admit that they sold a lot of cars. If they did not make as much money as they think they should have made it is because the margin of profit is too small and the expense of carrying on a retail automobile business too great. Those points have been noted in other towns and there is nothing new in them. Slow deliveries also handicapped the dealers somewhat at the beginning of the season, although as one man pointed out today it may be that those who did not buy cars because the agent could not deliver them promptly, went to some other agent, so that the total sales were not affected.

Those sales reached above 300 cars, if your correspondent's informers know. Conservative dealers have estimated to a MOTOR AGE man that there are 1,200 cars in Buffalo. That is too high, apparently, for the records at the office of the secretary of state in Albany, where every car is supposed to be registered, show a total of about 950 machines in Buffalo. Deducting 20 per cent from 400, the number of cars which several dealers say were sold here this year, gives 320. The estimates of the number of electric machines out of the whole number is between 150 and 200.

Whether these figures are exact or not, the men in the trade say they have had a good year. They think the bigger cars will be in increasing favor with buyers and they are preparing to meet increased demands. The George N. Pierce Co. is about to move into a fine new store on upper Main street. Its garage at that site has been in use for some months. W. C. Jaynes and J. A. Cramer both had new stores built during last winter ready for the opening of the last season. The Poppenberg Automobile Co. was well enough pleased with its trade this year to arrange for doubling its store floor space and building a large garage for use in 1905.

A few dealers quit the business at the end of the season, but others immediately took their places and the big dealers who remained in the game are contracting now for additional cars for the coming year. W. C. Jaynes will handle another big car in addition to the Winton. The Centaur Automobile Co. will add a big car to its line, which includes the Packard. The Pierce and Thomas factories are turning out for 1905 higher powered cars than they have ever built before and the Thomas people are preparing to boom their retail sales department in this city.

DIVERSITY IN ST. LOUIS



St. Louis, Mo., Jan. 1—During the past season St. Louis trade, equipped with 7-league boots, has advanced to the level of other industries, while before an automobile shop was as strange as an American bar in Constantinople. In the other days, little more than a year ago, motorists knew all the other motorists, by name at least, and certainly had a personal acquaintance with those driving the same car; but those who were a sympathetic little band before, have drifted apart and become a part of the hundreds. A year ago there were five garages in the west end, now there are fifteen.

The Halsey Automobile Co., 3910-18 Olive street, was the first to open an agency to sell automobiles, which was in September, 1899. In the past year the company has doubled its frontage on Olive street, until now it occupies 200 feet. This company is composed of O. L. Halsey, president; A. C. Halsey, secretary and treasurer; Perry Lewis, superintendent. It is agent for the Packard, Winton, Franklin and Cadillac. A. C. Halsey drove a Franklin to New York last September, establishing a new record for the distance.

The Mississippi Valley Automobile Co. is across the street from Halsey's, at 3927-33 Olive street, with Max Orthwein as president; H. S. Turner, vice-president, and Thomas Benoist, secretary. This is one of the old companies of St. Louis. It has a large garage, but at present no repair shop, though it expects to open one next month. This company has some very strong agencies in the Pope-Toledo, Olds, Knox and Columbia. The Pope-Toledo four-cylinder has sold very well this year.

The Western Auto Co., of which Marion Lambert is president, Samuel Breadon secretary and W. Walkingham manager, has just moved into a new garage at 4701 Washington boulevard. It is agent for the Peerless and Pierce. The past season it sold twenty Peerless cars and has a shipment of thirty cars ordered for the coming season.

Another Olive street garage is the Macnish Automobile Co., 3667-69 Olive street, of which J. Macnish is the president and manager. It is agent for the Ford. This is one of the most complete garages in the city. It is equipped with electric light and power plant, making it independent of the supply companies. The garage is the next largest in the city.

At 3916 Washington avenue is the White agency—Walter W. Leathers Co. The White has always sold well here, but better than ever last year. The Northern Automobile Co., 4105 Olive street, L. D. Haynes, president, is doing a good business in small quarters with the Northern runabout and touring cars.

The American Automobile Co., 4150-54 Olive street has recently opened a large garage with a storage place for sixty automobiles. It has

an imported machinist, Herr Henrich, in charge of the shop. It is agent for the Glide.

A. L. Dyke, now of 311 Pine, expects to move into a large garage and salesrooms on Olive street as soon as the builders complete their work. He will start 1905 business with two agencies, the four-cylinder Premier and the Gale, the new \$500 car. This is the familiar "Dr." Dyke, who is now in business by himself.

The A. L. Dyke Automobile & Supply Co., dealer in parts and supplies and agent for the Marion car and the Lamb motor-boat, is at 4601 Olive street. This corporation retains the name given it by Dyke when he was president, but Robert F. Britton is now president and his brother, Roy S. Britton, is secretary and treasurer.

The Westminster Automobile Co. has a new garage and salesroom at 4388 Olive street. J. W. Bemis is president; Harry W. Blodgett, vice-president; Amade R. Reyburn, treasurer, and Dr. W. W. Gardiner, secretary. It is agent for the National and Mitchell. The Auto Repair & Machine Co., Chas. A. Marian, manager, is located next to the Mississippi Valley Automobile Co., at 3933-39 Olive street.

Morgan & Harding, 3970 Olive street, are old bicycle and tire people, now agents for the St. Louis car. The St. Louis Automobile & Truck Co., 811 Walnut street, has recently bought out the Mound City Automobile Co., of 3944 Olive street, and will maintain two garages. It has the agency for the Rambler, Royal and Queen.

The St. Louis Motor Carriage Co., maker of "Rigs that Run," has its factory, which has been recently enlarged to supply the demand, at 1211-19 North Vandeventer avenue. Jesse French, Sr., is president; G. P. Dorris, vice-president, and Jesse French, Jr., secretary and treasurer. It also has a salesroom and garage at the same place. It has done a good business this year, as has every one else, owing largely to the fair. The officers are firm be-

lievers in the single-cylinder car, particularly as applied to delivery wagons, as the least cost of repairs and cost of maintenance is the principal characteristic of this type of engine. The company has made and sold 360 cars during the past season and though this number is small compared to large manufacturers' output, the St. Louis business is rapidly increasing.

The Missouri Automobile Works, 1621-23 South Jefferson avenue, have in preparation a 16-horsepower car, engine in front, shaft-drive, side entrance tonneau, which will sell for \$900. At present this company has the agency for the Pope-Tribune, which has sold well this past season. It also handles the Elmore and Crest-mobile. The officers of the company are Cyrus A. Haas, president and manager; A. T. W. Prichett, vice-president; Louis P. Graffmann, secretary and treasurer. The combined factory and garage occupies fully 10,000 feet of floor space.

Among the most successful manufacturers is the J. H. Neustadt Co., 826-30 South Eighteenth street. It is a maker of all parts for the assembling trade. Its own product includes everything necessary to construct steam and gasoline vehicles. It does not assemble, but ships every part for the complete car. The company began business about 4 years ago in quite a limited way, and within the last year has moved into the present large factory. It is not a corporation, though trading under a company name, the business being the sole property of J. H. Neustadt, who for many years had the supervision of a very large manufacturing industry in this city.

The H. F. Borbein Co., successor to the Brecht Automobile Co., which it bought about a year ago, is located at 2108-10 North Ninth street, where it manufactures running gears and parts. The company was organized in 1899, doing business on a small scale. It is now a well-known specialist in running gears. It is also building all styles of bodies ready for power. The company is hard at work trying to supply the demand for side-entrance bodies for this season's trade.

TOLEDOANS ORDER EARLY

Toledo, O., Jan. 1—Toledo automobile dealers report a very prosperous business for the past year. There are five garages in the city and sixteen lines of machines were handled. While the year's business was all that could be expected, in view of it being presidential year, the season had its drawbacks. Every dealer had difficulty in getting orders filled. Orders were placed rather late, and the factories, being rushed, the dealers experienced no little difficulty in this way.

For the coming season the Toledo concerns have taken time by the forelock and have placed their orders already. Some machines during the season sold much better than others, which, of course, was natural, but in certain cases the number of sales for the year were greatly influenced by the results of the race meets. One well-known dealer stated that he had a couple of sales "cinched," so to speak, for a certain first-class machine, when the result of the Vanderbilt cup race became known. On the following day the prospective purchasers changed their mind and purchased the machine that carried off

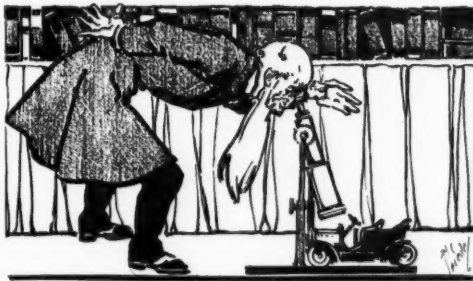
the laurels of victory. This argues very strongly for automobile races, and, as one dealer stated, it means a great amount of cheap and at the same time very profitable advertising for the concern whose machine is first driven home. Toledo dealers were given to some cutting in prices during the season, but this will be eliminated in most part during the coming season. It was found that enough cars could not be secured at any price, so that cutting tactics were far from a necessity to sell goods.

The prospects for the coming season are certainly bright, if the prophecies of the different dealers can be relied upon. There will in all probability be a half dozen more machines handled during the coming season over last year. Most of the contracts are already signed, and dealers are still looking about for a few more additional lines. With the presidential year relegated to its place in history, and with an easier feeling for the future, Toledo automobile concerns predict a rushing year, not only in the city but in most every country town throughout this section.

OPTIMISM STANDS OUT AT THE HUB

Boston, Mass., Jan. 1—Boston, once considered the most conservative city in the country so far as automobiles are concerned, and which in the early days of the industry was admittedly one of the hardest for the industry to secure a foothold, has, by constant work on the part of energetic managers and salesmen, now become one of the motor vehicle centers of the United States. To a considerable degree the Bostonian still maintains his conservatism; still, he will buy and patronize the manufacturers of the motor vehicle, as is plainly emphasized by the increased number of agencies established the past season, and of the opening of still more salesrooms on the motor rialto.

The past season has been an eminently successful one, and while some few manufacturers and dealers may not have made so much money as they thought they would, others have made more than was anticipated. As an indication of the vast volume of business done in this city, or rather in this state, during the past season, it might be well to state that at the opening of the year the highest registration number given out by the highway commission was 3,241, and the highest number now in use is 7,002, that number having been granted today. This shows an increase of 3,761 machines, slightly over 100 per cent gain in the past 12 months. Of course some of these numbers were issued



to the purchasers of second-hand cars, but according to the state authorities they would not amount to 1,000 cars. To offset this, however, is the fact that the Boston dealer does not confine his work to Massachusetts, but really covers New England territory, and no idea of the number of machines sold in other New England states can be gained from the fact that with the exceptions of Rhode Island and Massachusetts those states do not require a license or registration number.

This showing, to say the least, is a most satisfactory one, and is indicative of a still greater growth in the use of automobiles.

The season when viewed from a trade and other standpoints had few drawbacks. The automobile show of the Boston Automobile Dealers' Association proved a strong drawing card, and caused a separation of many a

man from his money. The hill-climbing contest and race meet of the Massachusetts Automobile Club were also magnets to increase the amount of interest, while the manner in which the Boston newspapers handle automobile matters has no small bearing upon the increase in trade and general interest.

Improvements in the matter of salesrooms and garages during the season there were in plenty, so that Boston now possesses some of the most up-to-date garages to be found in the country. Not only that, but the Massachusetts Automobile Club has made great gains in its membership, and no later than a few days ago dedicated an addition to its then excellent quarters. Hardly a firm of any importance in the country is without representatives here, and, while it is true that when in search of foreign cars the local purchaser had usually to go to New York, this will not be so during the coming season. Already eight foreign cars are represented in this city and Boston, in the future will unquestionably secure much of the trade that has heretofore gone to New York city.

There is not a business man in Boston who is not perfectly satisfied with the conditions of the last automobile season, and who is looking forward to a renewal if not an increase in the local retail trade during the coming year.

BRIGHT OUTLOOK FOR RHODE ISLAND

Providence, R. I., Jan. 1—Without doubt the year 1905 will be a record breaker in automobiling in Rhode Island. Present indications, coupled with the extraordinary development of the sport during 1904 point to one of the biggest seasons in the history of automobiling in this little state, and every one of the dealers is planning well ahead for the anticipated boom.

During the year the trade has been brisk. The demand for automobiles has been sufficient to keep all the agencies on the hustle and the competition for the orders has been keen. One thing is pointed out by the big agencies here, and that is that the automobile owners present and prospective are not of the class which hesitates over the price so long as the machine is satisfactory. That people know what they want and get what they want causes the automobile enthusiasts here to be looked upon as people of good sound judgment by the agents, whose time is thus saved from being expended fruitlessly.

About 500 automobiles is the sum total of the sales hereabouts for the year, not a bad showing for the smallest state in the union by any means. And among these 500 machines, nearly all the makes are represented. The large touring car has rapidly climbed into favor because of its great power and capacity and all the other styles have devotees whose spare moments are spent in flitting along the miles and miles of fine roads which abound about this city. The fact that the state's roads are in the majority of instances of good firm macadam has tended to bring automobiling upwards with rapid strides and has induced an enthusiasm, which, instead of showing any evidences of abating, is still on the increase. In every direction out of

Providence the roads are generally exceptionally good and the best of it is they extend sufficiently far to permit of a run of as long as an evening will allow without dropping off from their good condition. Of course, way out in the remote country districts there are still a few places where the roads could be bettered, but these are fast disappearing under the vigorous work of the interested automobile owners whose influence is sufficiently strong to bring needed improvements to pass.

One thing is noteworthy regarding automobiling in Providence. The city is built upon seven hills, like ancient Rome, and a machine to fill the requirements must be powerful enough to work its way up one or other of these ascents at almost every turn. This has produced a line-up of high powered automobiles that have the "get up and get" qualities, machines that will hold out well on a long, hard run, a showing of numbers of that class that will compare favorably with any other state.

As a rule, the greater part of the year's business has been in new machines. Several agents report a handling of second-hand automobiles during the season, but the number of such is small. In nearly all cases the demand has been for a spick and span, brand new automobile "right from the shop," and the would-be purchaser has always got what he wanted at short notice. Steam is obtaining a notable hold upon this state as motive power and the sales during the year of 175 automobiles of that class shows the ratio with other figures.

The sport received a good-sized impulse from the Narragansett park races last September, the record breaking by Basle, Ross and Kullick and the speed coaxed out of the machines

proving temptations that could not be resisted. The runs and tours and contests held by the Rhode Island Automobile Club have done much to keep the interest aglow until the indications for 1905 appear of the brightest and the promise is held out of its being the banner year.

Nowadays the smart set at the seaside has shelved the horse and taken to the automobile for means of pleasure transportation, but, of course, few of the machines are bought in the state, being sent from New York, Boston and other large places.

The Providence automobile school is to be opened in the Y. M. C. A. building and the registration so far is beyond the expectations. The automobile has invaded the teaming industry and several light delivery wagons are seen daily bustling about the streets, while heavy trucks trundle sturdily along without apparent effort. The question of providing automobile fire apparatus has been broached, but as yet has not received much agitation. That will come in time, but the conservatism of Rhode Island is famed throughout the country, and it takes time to work up innovations of that radical character here.

The membership of the Rhode Island Automobile Club has increased by twenty-seven members during the year and the club's program of events has been such as to make membership a much desired consideration by automobile owners. That the 1905 program will be a hummer goes without saying and plans are now on foot to bring about a series of runs, tours and contests that will attract all eastern motorists.

All in all 1904 has been a year of remarkable achievement in automobiling in Rhode Island and the outlook for 1905 is even more pronouncedly notable.

BY LEAPS AND BOUNDS IN PITTSBURG

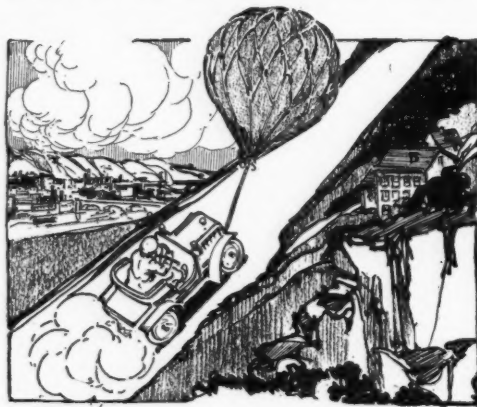
Pittsburg, Pa., Jan. 1—The year 1904 has seen automobilism firmly established in Pittsburg. Steep hills, sharp curves, poor country roads, cobble-stone pavements and blinding smoke—all these obstacles have not been sufficient to keep the new method of transportation from making most wonderful strides in public favor. Today Pittsburg is one of the most enthusiastic automobile centers in the country. Two years more, with sales increasing at the rate they have the past 8 or 10 months, will make it one of the two or three largest automobile-owning cities in the country as well. We see the handwriting on the wall, and nothing short of a business miracle can stop the growth of the automobile sentiment in this city, is the gist of the opinion of the big dealers in Pittsburg at the close of by far the most successful season they have ever experienced.

Nearly 400 machines have been sold since January 1, 1904. As a rule they have been better machines than were ever delivered in Pittsburg before. True, a few of the multimillionaires like Henry C. Frick, Francis T. F. Lovejoy and others, have indulged in the finest make of French automobiles before this year. But the average buyer, and in this class is included this year dozens of sensible, hard-headed millionaires who buy automobiles for a business investment and a saving of time, have purchased uniformly better machines than in previous years. Two causes may be assigned for this tendency. One is that business men who had thought at the first to economize by buying cheap machines or bought such automobiles to "learn with" found it costly experience, and this year went after machines that they could depend on.

One of the first questions now asked a dealer is: "What does the average bill for repairs on your machine amount to?" The other cause is the various contests that have been held in and around the city the last year to determine the speed and strength of different machines. These meets have demonstrated to both the men entered and the spectators that the higher-priced machines are the best and cheapest. Hence the number of low-priced machines sold to the city trade has been proportionately lower. It is noticeable, too, that the suburban and country trade has wanted better machines. While they do not ask for the most costly machines that are to be seen on city streets, they want automobiles that can be guaranteed to give them excellent service.

This disposition to buy the best is plainly manifest in the inquiries for 1905 machines. Fully a score of these have already been sold in Pittsburg. Some of the buyers were so impatient to see the new models that they visited the factories in company with the local representatives and made their purchases there after carefully studying the points of the different styles. Nothing could be more encouraging to the dealers that this seeking after the best, for it proves more clearly than anything else that automobilism has come to stay and is destined to double the number of its followers every year.

The meets of the year ending with the big Brunots island races the first of October, have been most satisfactory. Under the management of the Automobile Club of Pittsburg these meets have brought Pittsburg to



the front in automobile circles and have gained for some of her drivers an enviable place among the fact and skillful automobilists of the country. What is even more important, they have brought together thousands of business men and their wives and shown to them the pleasure and advantages, both business and social, that are derived from the owning and using of automobiles. Two years ago an automobile meet was next to impossible in the Smoky City. Now when such an event is proposed it goes off with a spirit and push that evidences the enthusiasm and the united energy of the men behind it. Witness the Brunots island races, where 8,000 people gathered 2 days to see drivers of national reputation compete with local owners, and where in spite of the fact that the expenses were over \$3,000, the club netted over \$1,500 and paid back to every member competing his entrance fee.

Plans already in progress for next year indicate that the season will far eclipse the past one in the number and importance of the meets. The popularity of these affairs is so great that the managers of places like Brunots island are glad to offer their tracks to the automobile club. Philadelphia newspapers have been ridiculed not a little lately because they had just "got into the game" and given automobile affairs a just measure of attention. Pittsburg newspapers were not so slow, for several Sunday newspapers of the Iron City have for months had an automobile department, well edited and profusely illustrated. The weekly society papers devoted even more space to the automobile doings and found it to their profit. No department of society or sporting news is read more widely today during the season than the automobile columns, if we except the baseball notes. Ladies are taking an active interest in all matters pertaining to the sport of automobilism, and are coming to the front by dozens to buy machines of their own.

Automobile sentiment has developed along other lines this year. Hitherto the sport of automobilism has been roundly condemned as being dangerous to the public. The constant efforts of the Automobile Club of Pittsburg to act in conjunction with the local police authorities and bring to justice every offender against the speed ordinances of the city and state have enlisted the active support of thousands of public citizens who have always preached against the "devil's racing." A big proportion of these men are going to buy automobiles, and they will buy good ones, too. Men who 2 years ago were afraid of automobiles or ashamed to own them are now convinced that automobilism

is not only as safe as other means of recreation but is a means of saving much time and giving to one's family a big measure of enjoyment.

The most praiseworthy work of the automobile leaders this year has been in the street and road improvements they have secured. State and city legislation has been pushed forward by them chiefly. Country roads leading through many of the most beautiful spots of Allegheny county were almost impassable the greater part of the year until taken in hand by the club authorities, who succeeded in having them macadamized and straightened. Miles of city boulevard have been made and more paving done on the downtown streets than in any 2 years previous. The local automobile owner who formerly had to choose a "straight and narrow way" for a speed run now has the choice of several fine boulevards going through the most aristocratic sections of the city or wending their way through the beautiful parks.

The crowning event of the year in automobile circles was the erection and completion of the handsome building by the local club. Due in great part to this work is the rapid increase in the membership of the organization, which now numbers over 250. The building, located in the very midst of the big automobile establishments and within a few minutes' walk of all the leading automobile driveways of the city, is symbolical of the marvelously rapid growth of the club itself, which is only about 18 months old. This winter the club house has been made over for indoor sports, and the ties of fellowship that were formed in the summer while spinning around the city or off on vacation runs are being more closely cemented in long hours spent at cards, billiards, bowling or other amusements at the club. The ladies are not forgotten in the events, and a house committee is now arranging a program of entertainment which will entice them to the club.

While the Automobile Club of Pittsburg has naturally taken the lead in pushing the sport ahead other prominent clubs have aided much by the hearty co-operation of their members. This is especially true of the Pittsburg Country Club, the majority of whose members own automobiles, and which has always by precept and example brought the sport to the notice of new members. Its beautiful and costly home on the heights of Squirrel Hill has been the center for many a long run and the meeting place of hundreds of visiting automobilists. The Brighton Country Club, located on the north side of the Allegheny river, has also been active in presenting the sport to the public in a worthy way. Downtown the Union and the Duquesne clubs have taken an active interest in whatever pertained to the automobile future of Pittsburg the past year. Other leading social organizations have shown in many ways their friendly feelings and have unconsciously swelled the list of automobile buyers. For when a sport is popular among the classes it is certain to have a big trade from them as well as from the masses.

The facilities of all the leading automobile establishments have been overtaxed all the year. They have done nearly or quite twice as much business as in former years. Inquiries received to date indicate a corresponding

increase in their trade next year. To meet these demands the big firms will have better and larger places of business before dust flies again. The Keystone Automobile Co., which has the largest garage in the city on one floor, has just completed a suite of three fine offices. Since buying the business of the Pittsburgh Automobile Co., a year ago, the company has made over its building in Center avenue, east end, until today it lacks nothing that is essential to a modern plant and has in addition to many a large battery plant and a testing plant.

Banker Brothers are constantly adding to their equipment, especially in the line of construction work. This firm, which has over a score of agencies scattered over western Pennsylvania, Ohio and West Virginia, can now make nearly all parts of an automobile at its own establishment and has lately turned out some of the most expensive automobiles sold in these parts this year.

The Standard Automobile Co. is also adding to its equipment in order to take care of its rapidly increasing trade. Its big garage is also located near the club house in the east end, and its sales are increasing at a most satisfactory rate.

The Hiland Automobile Co., lately organized, has recently completed a fine building at Baum and Beatty streets, and will have one of the neatest garages in the city. This makes four big establishments within a stone's throw of one another, and also within equal distance of the club house. A little farther away is the establishment of the Atlas Automobile Co., a comparatively new concern, in Penn avenue. This company has got out of the beaten track of automobile dealing the past season and had made a conspicuous success of selling second-hand machines in addition to its regular trade, and also in conducting auction sales of automobiles, which have proved successful.

As to what machine is destined to lead in the sales of 1905 it is hard to determine. The sales of the past year have been so well distributed among the leading makes as to show that they are all very popular with Pittsburgh buyers. The man who sells automobiles in Pittsburgh next year will have to meet a class of customers who are all "from Missouri." They will have to be shown just how and where his machine is better and more durable than his rivals', and he will find that he is not talking to a class of novices, either. Price will cut less figure in the deals than quality. As a local dealer remarked a few days ago: "Good machines will sell in Pittsburgh in 1905 as they have never sold before. Cheap machines will have no show at all, that is, automobiles that are really cheap in quality. If a man can bring a new machine to Pittsburgh and demonstrate its fitness for climbing the steep hills he will have no trouble in selling it."

SATISFYING RECORD AT THE CAPITAL

Washington, D. C., Jan. 1—As the year 1904 has passed into history and as the new year is upon us, it may be interesting to the trade at large to read a few lines regarding what has been accomplished in the automobile line in the capital city during the past 12 months and what is likely to be accomplished during the next year. All things considered, the year just closing leaves a record that is satisfying in many respects. A number of notable changes and improvements took place during the year, all of which were duly recorded in this correspondence.

It may be truly said that the twelvemonth just passed was, when taken all in all, the greatest in the history of the local trade. What shall be written in the volume of 1905 depends largely upon the ambitions, energies and achievements of the trade itself. The same forces will operate the coming year as did the one now gone. But they will be stronger, broader and more irresistible. If there be a lesson in the history of the dead twelvemonth it is this: "Be progressive." Competition will keep on, and the race will be won by the swift and the battle by the strong. Competition will do more than keep on; it will increase in intensity and force. As one local dealer truthfully puts it, "the automobile game is one of a 'bunch of trouble,' but it has a decidedly good future once it gets down to 'mother earth.'"

Reviewing local conditions during the past year it is unquestionably a fact that the automobile business of this city has been badly handled all around and those who are in close touch with the situation are freely predicting that in less than 3 months there will be fewer dealers than there are at this writing. It would seem that a number of half baked employees are imbued with the idea that the ingredients of an automobile company consist of a limited knowledge of the business, enough money to rent and partially equip a garage and sales-room and the adoption of a high-sounding name for the organization. At any rate, to all intents and purposes this sums up the assets of a number of automobile concerns that have figured for a

brief period and have then gone up in smoke. In this connection the MOTOR AGE correspondent can do no better than quote one of the best posted dealers here, a man who stands for the best there is in the trade:

"As it was in the old bicycle game, the majority of the automobile dealers here lack capital and more lack credit. To do any amount of business it is absolutely necessary to trade in, and there is also too great a proportion of sales made on installments. It can readily be understood that unless a dealer is in a position to lay out quite a little cash for exchanges and can discount paper, which he must take, he does not stand much show of gracing the automobile directory for a second time. While it is an undoubted fact, I regret to say that so many fly-by-night concerns have been in the business here, failed, forced to suspend, or, in some cases, "passed out twixt twilight and dawn," that an automobile dealer is an object of suspicion and better passed on the other side of the street. However, these conditions are bound to change and in the very near future, too. The trade will gradually get down to a business basis, cut out the unprofitable branches of the business, and the concerns that will remain will show a good profit next year and measure up to the standard of high-class business men in whom complete confidence can be placed."

Other successful dealers have expressed themselves in similar terms—and the successful ones naturally have a right to criticize those who have done nothing but bring discredit to the trade and injury to those who have conducted legitimate concerns.

The MOTOR AGE correspondent has interviewed a few of the more prominent automobile concerns here with regard to 1904 busi-

ness and the outlook for the coming year, and the results are herewith presented.

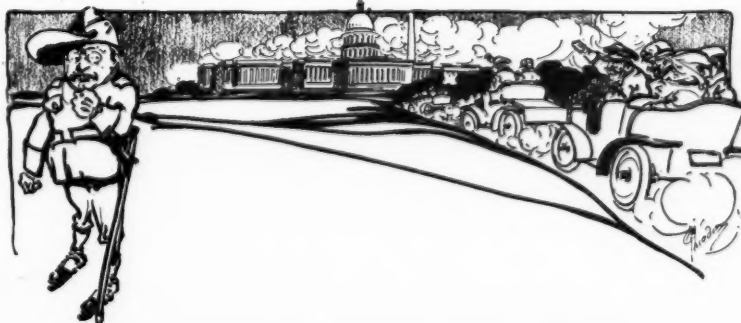
The National Automobile Co. has had excellent business all through the year. In June the company removed to its fine garage on Fourteenth street and with the increased facilities at hand better results were obtained. Sales were good throughout the year, while the repair and sundry business increased about 50 per cent over last year. Already the company has contracted for double the number of cars handled in 1904. Its present line consists of the Pierce, Peerless, Packard and Oldsmobile, and Racine motor boats.

The Pope lines figure very largely in the local automobile situation. This year marks Manager Hough's first year as manager of the local branch and he has accomplished a great deal in popularizing the Pope-Toledo, Pope-Hartford, Pope-Waverley, and the other Pope products. He notes a tendency for the higher priced cars, and is laying plans for a big year's business.

The Cook & Stoddard Co. has only been in existence for about 3 months, but with a splendid line, including the Winton, White steamer, Baker electric, Stevens-Duryea, Cadillac and Orient, it is in a position to cater to almost every demand that can be made. The company has just leased the building adjoining the garage at 1028 Connecticut avenue, and will connect the two places by cutting an archway. The new addition will be used exclusively for the electric department of the business. It regards the outlook for 1905 as being exceptionally bright.

Ford cars have made a big hit in Washington during the past year and Manager Kull is confident of accomplishing great things next year with Henry Ford's latest production. He has also added the Wayne car.

Other concerns here are as follows, and all have managed to get some trade: Washington Electric Vehicle & Transportation Co., Columbia gasoline cars; C. J. Lockwood, Stanley; C. E. Miller & Bro., Acme; Edison & Rice, Mitchell; C. L. Pittman, Grout. There are also a number of persons who have a car and solicit orders for it, but have no stores.



HARTFORD TRADE STRENUOUS



Hartford, Conn., Jan. 1—Many features of manufacturing and sale contributed to a season now closing and not altogether successful, gazed at through dealer's eyes. The late deliveries, the low cost of caretaking long in vogue, and the fact that many customers were lost to other channels by the inability of manufacturers to meet orders caused the profits which would have otherwise returned to dealers to be diverted to other channels. Those dealers in Hartford and Middlesex counties who got by and paid expenses this season past, count themselves fortunate and expect a large trade and considerable profit for the season to come with the prospects of early deliveries and an increased general interest.

While questions of care taking and dead storage do not enter directly into the question of profits from sales, they bear directly on the business, as when the amounts are considerable and a profit shown the profits for the year's business are correspondingly greater. A rate of \$10 a month for washing, housing and brass polishing has been in vogue in Hartford, with \$5 a month the rate for dead storage. Efforts have long been made to raise the price and cut down the loss dealers have sustained, but there has always been one garage to stick to the old prices. It is now believed, since the number of garages has been cut down by one, that a new and more profitable schedule will result.

In Hartford, where motoring is now in its tenth year, the situation was in the season just ended found unique in that the sale of the very low priced cars was practically nil, and it was the concensus of opinion among motorists that friends of the sport realized that motor car paragons of virtue could not be purchased for a song without the singer was an artist, and that automobiles supplying all demands could not be secured with tea checks or trading stamps. The medium powered gasoline cars, carrying four and more passengers, found the readiest sale, with some few purchasers of large cars, costing \$3,000 and more.

The steam car, which has never been a popular vehicle in Hartford, was less in evidence last year than ever before, fewer than a half dozen being sold. The electric vehicle, too, suffered in the point of sales compared with the 2 years which went before, but this was by reason of a less active canvas, no doubt, and it is in the air that new low priced electrics for ladies will be popular sellers during the season immediately at hand. Gasoline cars of \$2,000 price and thereabouts were the most popular cars judged from the number sold and this indication holds good for the coming season al-

though a number of seasoned motorists will undoubtedly own larger and more powerful cars during the coming season.

Among commercial vehicles the electric vehicles made strides in Hartford as has the Knox air-cooled light delivery wagon. Automobiles are so old in Hartford—Colonel Pope having begun experiments in the hey day of the bicycle industry—and smack so little of novelty that absolutely no sales of cars have been made in Hartford with the advertising idea of their use entering into the proposition of purchase. The Hartford Rubber Works Co. recently replaced two trucks drawn by three horses each with 5-ton electric trucks and the fact that a saving of \$12 daily resulted has set users of such vehicles thinking. The Knox company succeeded in landing three vehicles in Hartford and the fact that they have been kept going through the winter argues well for automobile substitution in commercial lines next season.

Deduced to lowest terms no dealer in Hartford has made money in the business up to this time, though all of them have paid their way.

MILWAUKEE'S BIG BUSINESS

Milwaukee, Wis., Jan. 1—Prosperity—that one word tells the story of automobile trade in the city of Milwaukee for the year ending 1904. To be precise, the year has been characterized by unprecedented prosperity in all lines, manufacturing, wholesaling, the manufacture and sale of parts and in the retail field. But the best feature, so the dealers will tell you jubilantly, is that the prospects are for a season in 1905 which will break all records.

What the automobile business has been in Milwaukee during the year 1904 can best be realized through a cursory retrospection of some advances. At the beginning of the year the correspondent of MOTOR AGE took occasion to make some rather pertinent inquiries. The answers came from what seemed to be a reliable source.

"Are these people making any money?" he asked, signifying certain local dealers who were quartered rather humbly.

The reply was in the negative. Perhaps the authority referred to did not know, but he should have known. At any rate, he pointed out several dealers who "were not making their salt," he he expressed it. And he was inclined to predict that a certain one or two were liable to go into bankruptcy within the next few months.

As the retailer is the pulse of the trade, that was the automobile situation at the beginning of the year 1904. Today things are vastly different. No one need ask if this dealer or that dealer is doing a good business, for there is outward evidence of an unbounded prosperity everywhere.

Where a year ago there were one or two make-shifts of garages, today there are a half dozen well appointed establishments, some of them elegantly equipped, and this, too, in Milwaukee, where the Teutonic blood moves slowly, and where a "new idea" catches only after the most persistent work imaginable on the part of its promoter.

There are about 300 machines here. Next year, dealers say, there will be fully 1,000 automobiles owned in Milwaukee. There is about \$1,000,000 invested here now in automobiles

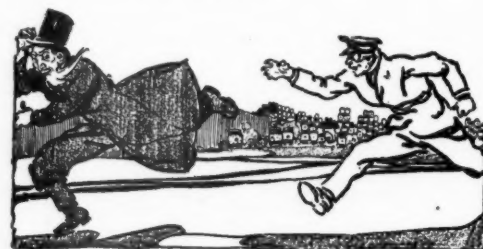
The Tewksbury station, caring exclusively for electrics, with a large trade and commanding a big price, has been a money winner from the start. The dealers are sufficiently hopeful of large business and a better order of conditions for the season at hand, however, and it is no departure from the truth to say that the prospects are brilliant.

Air cooling is undoubtedly growing in favor among devotees and indications point to an increased sale of such types during the coming season. Those few air-cooled cars which came into the city in the season closed undoubtedly made good and their owners shout for them. Another feature of the business, unique with this closing year, was the purchase of gasoline cars by physicians who had long run electrics. Not that the doctors gave up their electric cars, for in Hartford physicians are most partial to them, but gasoline runabouts were purchased for the making of calls long distances from Hartford, the physicians believing that such cars were good investments for the even comparatively few number of times employed. Hartford is unique, too, in having the largest number of automobile owners among doctors of any city its size in the country.

and in automobile business—perhaps more; certainly no less. In another year, if predictions are fulfilled, there will be three times as many machines, and three times as large an investment will be represented. There are daily incorporations of companies that propose to exploit this device or another in the automobile field. But we are waiting to see them make good. If no more than 20 per cent of them stick it will mean a tremendous advance.

There have been a few large manufacturing deals of interest to the automobile trade. Chief among these, perhaps, was the purchase recently of a large south side plant from the Pope interests by the A. O. Smith Mfg. Co. The plant passed from the hands of local capitalists into those of the A. B. C. when the bicycle trade was at its height, then into the hands of the Pope people. In the future, it is promised, this plant will be devoted entirely to the making of automobile parts. It holds contracts with many of the leading automobile manufacturing concerns of the entire country.

About a year ago, when Milwaukeeans organized the Four-Wheel Drive Co., incorporating it with a capital of \$1,000,000 provided for, many people laughed at the venture. A few days ago the first model car of this company came out upon the streets and pirouetted around gaily over slippery snow 14 inches deep. The company may not be so much of a joke as some people thought, declare some who witnessed the performance. The promoters declare they are going to do business and upon no small scale at that. In their contrivance power is transmitted to each of the four wheels, with which the steering apparatus also connects separately.



SYRACUSE IS ACTIVE IN THE INDUSTRY

Syracuse, N. Y., Jan. 1—The year that has just passed has been the most important and eventful in the automobile business of any since the first motor car appeared on the streets of Syracuse. There have been many mistakes, always incidental to the development of a new business, but the watchword has been "progress." From this distance it looks as if the coming year would astonish the skeptics and there is no doubt that central New York will be a fertile field for the dealers as well as the manufacturers.

While Syracuse by reason of the factory of the H. H. Franklin Mfg. Co. has already taken a foremost place in the automobile world, yet the retail business there has not been what it should have been considering the size and importance of the city. There are many wealthy men who have not yet invested in cars, and there are fewer automobiles in this city than in many other cities smaller in size. The task of rounding up some of these delinquents is before the retailers, and it may be confidently predicted that many will get the disease before the season is over. Many of the first families of the city do not boast of an automobile. This is due partly to the fact that they are interested in horses and partly to the laxity of the dealers in getting after them. Syracusans are famously slow to venture upon any new idea, and the capitalists want to see where they can get two dollars back before they spend one. It is the task of a good salesman to round up these persons who have been hanging back, and it is confidently expected that there will be something doing this winter.

No more phenomenal growth can be found than that of the Franklin factory during the past year. A building has been added which will double the capacity and the output for the coming season will be 1,600

machines. It is probable that the Franklin factory will be still further enlarged next year.

The development of the air-cooled idea is remarkable. When several years ago John Wilkinson, the engineer of the company, made the statement that a four-cylinder, air-cooled motor was to be the coming thing for motor cars he was laughed at and told that all the money he had put into the scheme would be lost. He kept at work and finally formed a company, the principal backer of which is Alexander T. Brown, inventor of the Smith Premier typewriter. Many persons who had a chance to get in on the ground floor are now using the kicking machine because they turned down the proposition. The company has placed three traveling men on the road to visit retailers, establish agencies and introduce the car where it has never been seen before. A foreign department has also been opened in charge of Sigmund Krausz, formerly of Chicago. Mr. Krausz will leave early in the season for Europe, taking with him several cars to show abroad. During 1906 it is expected a large foreign trade will be developed.

The R. M. Cornwall Co., which at the beginning of the season moved into a six-story building in South Salina street, had a good season, disposing of 100 cars. The company last season handled the Franklin, Oldsmobile, Elmore and Pope-Toledo. The coming season the company will sell the Thomas, the full line not having been completed. The company is contemplating renting the store immediately south of its present location and removing the partition, so that a larger show can be had on the ground floor. The company now has 80,000 feet of floor space. According to Mr. Cornwall, the demand next season will be for the larger touring cars and the smaller runabouts, the cars in between

not having the popularity they once had. The company has received three carloads of American Electrics and will make a drive on them. Improvements will be made in the charging plant so that fifteen or twenty machines can be cared for at one time. A man will be placed in charge who understands chemical action.

A new comer in the field is the Amos-Pierce Automobile Co., which has already taken up quarters in the Legett building in South State street, and will have 60,000 feet of space. The concern has plenty of money behind it, and is preparing to make some radical advances in the business. The company will handle all of the Pope products, the Peerless, Columbia, Olds, Stevens-Duryea and the Buffalo electric. The members of the company are Carl L. Amos and Harry L. Pierce, both of whom have long been members of the Syracuse Automobile Club and enthusiastic automobilists.

The Syracuse Motor Car Co. will sell the Cadillac, and will be located in W. H. Bissell's old garage in South State Street, which will be fitted up with every facility. Mr. Bissell is a member of the new company and will be the manager. His associates will be David Grody and Simon Silverman, Jr. The company will probably sell other lines to be determined upon later. M. C. Blackman has had a successful season in his garage in South Warren street. He started in a small way and has grown rapidly. His leader will be the Pierce-Arrow.

The Automobile Club of Syracuse has not been as active as might have been wished owing to lack of time by its leading members. During the fall, however, it woke up and it looks as if the winter meetings will be a source of great benefit. The annual meeting of the club will be held January 9, at which time the officers will be elected.

QUAKER CITY INCREASE IS 33 1-3 PER CENT

Philadelphia, Pa., Jan. 1—The automobile trade of the Quaker City improved not less than 33 1-3 per cent during the year 1904. Such is the consensus of opinion among the managers of agencies and salesmen in a position to judge. Business has been good—very good, some of the more fortunate ones say. A few complained of slow deliveries, claiming that but for that handicap their year's business would have been even better. But as the trade they lost went to other local concerns more happily situated in that respect the general average of improvement is unaffected.

All hands predict that 1905 will be a record-breaker, some of the managers showing the MOTOR AGE representative numerous orders filed for the coming year's product.

No better idea of the growth of the automobile business here during the past year can be given than to state that a few over a thousand more licenses were issued by the bureau of steam boiler inspection, at the city hall, in 1904 than was the case last year. This new business about represents the actual increase, minus the few who abandoned the game during the year.

"Bob" Garden and Percy Neel, of the Quaker City Automobile Co., said the year's business was "good"—they would not overstate matters and say it was "very good" or "splendid," but said "good" about de-



scribes the business done during the past year. The season opened with a grand spurt, deliveries were made promptly and the outlook for a phenomenal trade was bright. But later they were unable to fill orders promptly, and not a few sales were lost in consequence. The company's business for the year was aptly summed up by "Bob" Garden when he said: "We did about as much as we could." The Quaker City company is the largest concern in the city, handling the Oldsmobile, White, Franklin and Pope-Toledo, and its experience is a good indication of the trend of affairs in the automobile line here during the past year.

Mr. Gawthrop, of the firm of Gawthrop & Wister, which firm handled the Yale and Elmore, corroborated the testimony of Messrs. Garden and Neel. "We did a phenomenal

business with Elmore cars," he said, "and were not handicapped in the least by slow deliveries. We took the precaution of ordering cars ahead and always had plenty in stock. We have nearly twenty orders on our books now for 1905 Elmore—which will give you an idea of what we think of the coming year's business."

A. E. Maltby, local representative of the Winton company, had about the same story to tell—the business of the year exceeding that of the previous twelvemonth by nearly 40 per cent. No difficulty in deliveries was experienced and customers were not compelled to wait for their cars. The first installment of 1905 Wintons is due to-morrow.

With but very little variation the same opinions were advanced all along the "row," William Morgan and Al Kirk, of the Locomobile concern, making statements almost identical with those given above. From which it may be gathered that the claim of a 33 1-3 per cent improvement in the local automobile trade during 1904 is a conservative one.

The unanimity with which all hands claim that they will have plenty of cars on hand all through next season would seem to indicate that that bugaboo of the trade—slow deliveries—had been finally circumvented. Which would point to an equally extensive improvement in the coming year's business.

GOLDEN GATE ACTIVITY



San Francisco, Cal., Jan. 1—The year just passed has been a most successful one in local motordom and it has practically been the first year of real automobile business. Interest in the modern creation is ever on the increase and people are being convinced that the automobile has come to stay and with the advent of it in the commercial world for delivery and trucking purposes they believe there is no limit to what the next few years will bring forth. All the dealers here look forward to this year as the banner one in local motoring. The season's business for 1904 has been considerably larger in volume than it was in 1903 and the prospects are that 1905 will show marked improvement over the 1904 volume of business.

One dealer said: "I think the prospects are that the motor car business the coming year will be the largest in the history of the horseless carriage."

"We expect to do three times the business during the coming season than we have done any year since our company has been in existence," remarked another dealer.

"We arrived at this conclusion after carefully canvassing every part of our territory by means of a circular letter addressed to all our agents asking for the situation of number of machines they expect to sell during the coming season. After receiving this information and after visiting the factories represented by us in the east and thoroughly convincing ourselves that the factories we represent will turn out salable cars for this territory, we have placed our order for three times the number of machines that we have ever sold in any past year."

There has been a good deal of bitter rivalry among the local dealers, who lack in association or co-operative work. The National Automobile and Manufacturers' Co. went into the hands of receivers in the middle of the season and was succeeded by the Pope-Toledo Touring Car Co. Owing to the failure of the National company, which had agencies for almost a dozen different makes, and changes in other directions, the season's business has not been as satisfactory to the local dealers as might have been wished for.

The White company, which run its own branch office at San Francisco, has had a fairly satisfactory season's business and its garage, built a year ago, has already proven so small that the company has let a contract for a new garage across the street, 207 feet on Market street by 180 feet deep, two stories, which will give 72,000 square feet of floor space.

The Cadillac Automobile Co. has had a satisfactory season, which even exceeded the ex-

pectations of Manager Lee. The West Coast Motor Car Co. has been most successful in disposing of Autocars, both the four-passenger and the runabout. The Mobile Carriage Co. has been fairly successful with Pierce cars, but has done most of its business in renting and storing automobiles.

The Packard has not been pushed very much here, nor the St. Louis, both of which are represented by the Pacific Motor Car Co. The Thomas has only had representation a few weeks. The Auto Livery Co. intends to handle Peerless cars in this territory next season. The Pungs-Finch machine has also lately been introduced here and B. B. Stanley, the agent, is very well satisfied with his prospects for business next year.

Of the sales in San Francisco during the past year, the large majority of purchasers seem to have preferred touring cars, the number of two passenger machines sold being comparatively very small. Of the touring cars sold in this market the White steamer and the Autocar seem to have had the bind of the trade. Next in order of volume is probably the Cadillac, closely followed by the Rambler. Next in volume will probably come the four-cylinder Pope-Toledo, which has had the lead in this market during the past season of four-cylinder cars, as there have been practically no other four-cylinder gasoline American-made cars sold here, with the exception of a few 40 horsepower Columbias and two or three Winton quads. There have been a number of Winton cars sold of the 1904 pattern, many of which are being used for renting.

Of the small two-seated cars that have been sold, the Autocar runabout has without doubt had the best of the local trade. This machine has not only become popular with women but physicians have generally adopted it as a most suitable car for their purposes. A few Oldsmobile runabouts have been sold, several Stevens-Duryeas and a few Orient buckboards. Very few Fords have been disposed of and although the Queen has had representation by the Light Automobile Co., not many sales have been made.

During the past few months several concerns doing a second-hand business in automobiles have opened up and are well satisfied with business so far. These concerns are the Automobile Brokerage Co. and the Yosemite Garage and the Golden Gate Auto Co.

The California Auto Express Co. is introducing big electric trucks and also several electric tally-hos. It is doubtful as to the success of these heavy electric motor-drays, owing not only to the great number of grades in this city but because of the poor condition of many of the principal streets.

Los Angeles, Cal., Jan. 1—The past was a good year for southern California automobile dealers, and actual sales since the first of January in Los Angeles are up in the big figures. The season's results have shown that Los Angeles people and the people of southern California are coming around to the touring car idea and this is the first season that touring cars, especially large ones, have been in much demand in this part of the country.

This has been a runabout market since automobiles were introduced, as the automo-

bile was purchased for actual everyday use to take the place of horses, for business travel more than for pleasure. This is the reason there are some 900 of one make owned in southern California. The Los Angeles city clerk's record shows over 1,200 automobiles registered in this city. The number of machines in southern California approximate 2,000.

This territory known as southern California is nearly 300 miles long and about 150 miles deep, so that it would readily be seen that this is one of the best automobile and tire markets in America. The total population of California is less than a half million outside of San Francisco. The roads are being made better constantly and every day in the year automobiles can be used here.

Local sales during 1904 have shown that over 225 of the Oldsmobiles have been delivered from the agency here and about 100 Fords. The Rambler also had a good sale. W. K. Cowan, the agent, disposed of over sixty of the two-cylinder cars up to November 1. The Stevens-Duryea was also a good seller and probably fifty have been sold in southern California this year. The Cadillac, St. Louis and Franklin have not been pushed in southern California, so of course have not done so well this year. The Haynes-Apperson was introduced this year, and became extremely popular in the early part of the season.

The Tourist factory, known as the Auto Vehicle Co., manufacturing a two-cylinder double opposed engine, has had a fine business and has delivered eighty cars. The maker maintains no agencies whatever, but sells direct. Its best model with 15-horsepower engine sells with equipment at \$1,750. The 12-horsepower runabout, which is really a touring car, sells for \$1,000, in plainest form, up to \$1,250.

The Autocar is sold here by a branch house of the West Coast Motor Car Co. of San Francisco. The \$1,000 runabout has become very popular and the Autocar touring car has taken well all over California for over two seasons. The White steamer had a good run this year and the White garage disposed of over fifty cars and a stock of 1905 models has just arrived. A number of small agencies has been maintained here, like the Mitchell and the Overland, which have sold a few cars.

The Winton had a poor sale early in the year and the two-cylinder type disappeared from this market before June. Several Winton quads were sold and the Pioneer place is looking for a big run during 1905 on the new Winton. The Pope-Toledo has taken well this year, and the Western Motor Car Co. is making a leader of it and probably twenty-five have been sold this year.

The Thomas three-cylinder car has been successful and about a dozen were sold here. A new car on the local market, which has lately been introduced, is the Worthington, sold by the Worthington garage. All in all the southern California dealers have very little of which to complain.



DOINGS OF THE CLUB MEN



AT THE CLUB HOUSE OF THE FLORIDA EAST COAST ASSOCIATION OVERLOOKING THE ORMOND BEACH

Two Are Doctors—Of the four officers of the Napa Automobile Club, of Napa, Cal., two are doctors. Dr. E. J. Hennessey is president; Dr. Osborne, vice-president; F. S. Jacks, secretary; Burt Nortob, treasurer.

Doubling Yearly—The Western section of the Scottish Automobile Club had thirty-eight members in 1902, when it was organized. A year later the club had 113 members, and at the end of 1904 the membership had increased to 320.

Loubet Presided—President Loubet of France presided at the annual meeting of the Touring Club of France, which was held in Paris, Dec. 8. The organization, which will soon have 100,000 members, held its annual meeting 14 years ago in the back room of a little wine cellar of Paris.

Talked on Porto Rico—Orrel A. Parker, of the Automobile Club of America, gave a talk at the club house of the organization in New York on Tuesday, January 3, about Porto Rico. Several hundred pictures were shown by lantern slides and the affair was pronounced very interesting.

Booming the Membership—The officers of the Automobile Club of Buffalo have started the new year with a determined effort to boom the membership roll. At its next meeting the membership committee will act on at least ten new names, making fifty in the last 2 months, but it is hoped the number of additions during the first week of January will much greater than ten.

Have Entertaining Scheme—At a recent meeting of the Association of Country Automobile Clubs of France, it was decided that each club should decide upon a certain month during the year when it will entertain the other clubs and that this should happen, as nearly as possible, about the time some important event takes place where the club is located.

A. C. A. Club House Scheme—Plans for a club house to cost almost half a million dollars for the Automobile Club of America have progressed to a point where a special meeting of the club has been called for January 10, when the members will take action on the report of the governors. The plan suggested for the building of a club house and garage calls for the expenditure of approximately \$420,000. It is proposed to raise among club members \$150,000 of the above amount by issuing second mortgage 4 per cent bonds in denominations of \$500 and \$1,000 each, the balance being cared for by money on hand and a first mortgage. The governors have secured the underwriting of more than \$100,000 of this second mortgage bond issue. As it is deemed for the best in-

terests of the club that as large a number of individual members as possible should be holders of these bonds, the governors wish to receive subscriptions until the limit of \$150,000 has been reached.

Good Membership—The Automobile Club of Great Britain and Ireland has now 2,650 members. Adding the number of members of affiliated clubs the total membership of the English club amounts to 6,031 members.

Arranging Minstrels—The Chicago Automobile Club has set January 25 as the day for its annual minstrel show. All the available talent has been rounded in and rehearsals are now in progress twice each week at the clubhouse on Michigan avenue.

Big Dinner January 15—The New York Motor Club will hold its first annual dinner at the Hotel Astor on Sunday, January 15. The dinner will be followed by a vaudeville smoker. The enterprising organization has received acceptance of invitations from the most prominent automobilists in the country. The guest of honor will be Sir Thomas Dewar, of England. Among the others expected to be present are Professor Hutton, of Columbia University, who is a member of the club; Dave H. Morris, president of the A. C. A.; W. E. Scarritt, H. W. Whipple and the heads of the various city departments.

Working for Good Roads—The Automobile Club of California intends to make a hard campaign for good roads and better legislation concerning automobiles in California. During the last few months the executive committee of the club has been preparing for work before the legislature in behalf of better road conditions generally and also in the behalf of uniform legislation with regard to automobiles. The ordinances in the various counties differ widely in this regard and many of them are decidedly antagonistic to automobile driving on the public roads. Unless there is an improvement in the local laws it is desired to have a uniform general law which will properly regulate speed conditions and be fair to all.

Approaching Professionalism—At the semi-monthly meeting of the Dallas Automobile Club, of Dallas, Tex., there was a discussion on the advisability of the club passing a resolution that it pay the expenses of any car sent to a race meet in another locality, and which is sent to that meeting as a representative of the club and not of the individual who owns it. Any owner may send a car to a race, but this will have to be done at his personal expense. Some members also suggested that the club should not send machines to meets held in localities where the local club does not send machines to take

part in events arranged by the Dallas club. There is a possibility that both suggestions will be adopted.

Treasurer With Money—The following ticket has been prepared by the nominating committee of the Dallas Automobile Club, of Dallas, Tex.: President, John C. Hunter, vice-president, E. H. R. Greene; treasurer, G. R. Scruggs; secretary, Eugene Corley.

Suckers to Organize—The Chicago Automobile Club has addressed letters to all of the automobile clubs in Illinois asking co-operation in the formation of a state federation of clubs, and to bring this matter to definite form has called a meeting of all Illinois clubs to be held at the Chicago Club's home, Wednesday, February 8, the week of the Chicago show. There are now, it is believed, enough clubs to form an organization that will have great influence.

Automobilist Won—William Coverdale, an Iowa club man, was driving his machine up a steep hill near West Maqueketa on July 21. When near the top of the hill he saw an approaching team. The horses became frightened and those in the wagon signaled Coverdale to stop, which he did, besides stopping the motor. When the automobile was stopped it was about 60 feet from the horse-drawn vehicle, it having required 40 feet to stop the car. The road was narrow, there being embankments on either side and the distance between the automobile and the bank on the west and right side of the road was about 10 feet. In passing the car the dashboard against which the driver was braced gave way and he fell down between the tongue and the right wheel. After being dragged a short distance he let go the reins and the horses ran away, while the other occupant of the wagon jumped and was injured. The two men swore out a warrant against Coverdale based upon the following section of the law: "Any person operating a motor vehicle shall use reasonable caution in passing such horse or animal, and the operator and occupant of any motor vehicle shall render necessary assistance to the party having in charge said horse or other draft animal, in so passing." The case was tried, without a jury, before a justice, who found the defendant guilty and stated that inasmuch as the evidence tended to show that Coverdale had not given half of the road and had not left his vehicle, that he had not rendered such necessary assistance as provided by law. The case was appealed and tried anew at the November term. After the testimony of the state had been introduced, the defendant's attorney made a motion to take the case from the jury and instruct the jury to return a verdict of not guilty on the ground that the state had not made out a case. The court sustained this motion and in doing so stated that the driver of the automobile stopped as soon as the signal was given. In so doing, he was compelled to stop in the middle of the road. The approaching team was so close that it would have been dangerous to have pulled the machine to one side and if he had done this he would have violated the law, which says he must stop when signaled to do so. As to the definition of "necessary assistance" the court said in his opinion it meant such reasonable assistance as could have been given under the circumstances.

FLORIDA TOURNAMENT PLANS

Entries for Automobile Races on the Beach Include Nearly All Important Makes of Cars in the Racing World—Motor Boat Program Lengthy—Some Who Will Compete

New York, N. Y., Jan. 1—The automobile and motor boat races at Ormond, Palm Beach and Havana are regarded in the east of sufficient moment to share equally with the shows at Madison Square garden, the Coliseum and Herald Square the leadership in discussion and interest. The writer, who has just returned from a New England trip, found the Yankees as full of race talk as New Yorkers themselves. Beantown will make every bit as big a bid for southern circuit honors as will Chicago, New York, Detroit, Cleveland, Pittsburg, London or Paris.

Although entries will not close until Friday of next week, enough nominations have already been made to insure the greatest automobile racing carnival in the history of the sport. A MOTOR AGE man yesterday called on Senator Morgan to learn how the entry list was progressing. So far as those sent to him went, per Secretary Gillette, of the A. A. A., and Secretary Butler, of the A. C. A., as his associates are also authorized to receive nominations, W. K. Vanderbilt, Jr., was the first entrant, with his new 90-horsepower Mercedes, which lost the Eagle Rock championship to Gould Brokaw's Renault, of equal fame, by a fifth of a second. Close on the heels of Willie K.'s entry came those of H. L. Bowden, Barney Oldfield and Alfred Gwynne Vanderbilt.

Mr. Bowden, who scored the 15-mile record at Ormond last year with a 60-horsepower Mercedes, will spring a surprise this time. He has coupled two 60-horsepower Mercedes engines and will set them on an inverted pressed steel frame, just as Louis Mooers did in making the world's record-holding Peerless Green Dragon for Barney Oldfield. This will make a low-lying car of great power, capable of making sharp turns in the long distance races without upsetting.

Barney will be on hand with the Green Dragon, and with an unbroken string of world's track records behind will be looked to as a standby to sustain American sprint racing supremacy against the foreign cars and drivers. Oldfield thinks he has the fastest car in the world. He certainly has reason for his confidence.

Alfred Gwynne Vanderbilt has entered the 90-horsepower Fiat. Paul Sartori, who drove it in the Vanderbilt cup race, in the great Empire City five-cornered match, and in the Eagle Rock hill-climb, will be its pilot.

The 90-horsepower Napier, which finished second to Rigolly and the Gobron-Brillie in the Gallion hill-climb, has been entered by the Napier Co. of America. Arthur Macdonald of the Napier team, who drove it on that occasion, is on his way across the ocean to pilot it, his team mate, Edge, being detained in England by business.

Besides the entry of the 10-horsepower steamer, which made the best record of any American machine in the Eagle Rock hill-climb, with an ascent in 1:23% as against 1:20 scored by the winner, Windsor T. White will have Webb Jay give a first trial to the new

White racer, designed for competition in the Vanderbilt cup race and in the track circuit next season.

Lewis S. Ross has nominated his special Stanley steamer, which scored world's track records up to 15 miles, and for 10 miles at Providence, September 10. Frank Croker has named the 75-horsepower Simplex he drove in the Vanderbilt cup race, and F. A. La Roche has entered two Darracqs, one of them the 80-horsepower racer recently bought by President Steck, of the Florida East Coast Automobile Association. Major C. J. S. Miller has nominated a 60-horsepower Thomas Flyer, and Fred Titus will probably pilot a 40-horsepower car of this make for Harry S. Houpt, of New York, which the later will enter in the stock car classes. President Budlong, of the Electric Vehicle Co., told the writer that his company would be represented in the stock races by Columbias. Bert Holcomb and Eddie Bald seem likely to be their drivers.

S. B. Stevens has bought and entered Clarence Gray Dinsmore's 90-horsepower Mercedes, which Warner drove in the Vanderbilt cup race. Isaac E. Emerson, of Baltimore, has named a 40-horsepower Bollee, and George Flinn, of Pittsburg, and James S. Breeze, of New York, a 60-horsepower Mercedes each.

B. M. Shanley, Jr., of Newark, has also promised to enter the world mile record Mercedes, the hero of last year, which he bought from W. K. Vanderbilt, Jr.

No entries have yet been made by Colonel Pope, but it is known that A. C. Webb will drive the 90-horsepower Pope-Toledo Bennett cup candidate. The Pope Motor Car Co. has wired for entry blanks, which looks like a wholesale Pope invasion of the Florida beach.

Henry Ford has entered the lightweight track record holder, which Frank Kulick will again drive. The Autocar Co. and the Olds Motor Works have made entries in the runabout class. Joe Tracy will drive a 40-horsepower Royal, and J. S. Heller has entered a Pope racer.

A dangerous aspirant for the championship will be W. Gould Brokaw's 90-horsepower Renault, which won the Eagle Rock hill-climb and was a competitor in the Vanderbilt cup race and the big four-cornered match at Yonkers. It is probable that William Wallace, who will

be absent in South America at tournament time, will let E. R. Hollander drive his Vanderbilt cup Fiat in the amateur contests. Another notable competitor will be Walter Christie, who has coupled two engines, each driving direct on the axle.

It is expected that A. L. McMurtry will have his timing apparatus up and working by Monday, January 23, and that there will be many to make record trials that day.

From Ormond the southern circuit chasers will go to Palm Beach for the motor boat carnival, which will begin on Wednesday, February 1, and continue during the week.

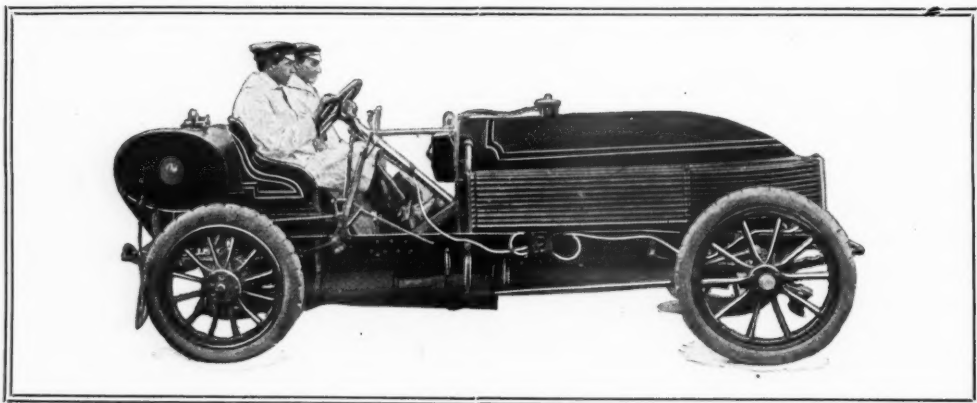
Fred Sterry, secretary of the Palm Beach Motor Boat Association, and Lieutenant Hugh L. Willoughby are already at Palm Beach laying out the course and making other arrangements for the success of the carnival. The representative of the association, W. J. Morgan, has just returned from Palm Beach, where he had a conference with his association and prominent boat men in Florida. A. J. McIntosh, of the American Power Boat Association, under whose rules and auspices the tournament will be held, is working in conjunction with Mr. Morgan, and has approved the 4-days' program, which provides for boats of various powers and also takes in some sailing boat classes.

What promises to be the great feature of the water carnival at Palm Beach will be the two parades, one at night, illuminated, in which some score of electric launches will take part, as well as house boats, motor boats, etc., and the other a flower carnival and day parade. The lady guests of the big hotels and cottages will be invited to take part in the floral affair.

Lieutenant Willoughby, who was in charge of the Rhode Island naval reserves for several years, and who spends his winters on his house boat in Florida waters, where he has other boats also, took charge of the famous Newport marine parade of a few years ago.

Sir Thomas R. Dewar, of London, has accepted an invitation to act as an associate referee of the carnival with Henry M. Flagler. The judges will be the veteran actor, Joseph Jefferson, A. J. McIntosh, of the American Power Boat Association; Lieutenant Willoughby, ex-Commodore Griffin, of the Bayswater Yacht Club, and other competent officials.

Arrangements have been made to ship the boats in conjunction with the automobiles for the Ormond-Daytona tournament and a special freight train will carry them to the scene of the races direct. Arrangements will also be made with a steamship company to carry some



ARTHUR MACDONALD IN THE 100-HORSEPOWER SIX-CYLINDER NAPIER NOW EN ROUTE FROM ENGLAND FOR MR. MACDONALD TO DRIVE IN THE ORMOND TOURNAMENT

of the boats to Savannah, whence they will be transported by rail.

The first day, Wednesday, the racing will be free for all, without handicap. The schedule arranged is: High speed motor boats, 4 miles; pleasure motor boats, 4 miles; motor boats, manufacturers only, 4 miles; cabin motor boats, 4 miles; charter motor boats, 4 miles; high speed motor boats, 8 miles.

Thursday will be known as high speed day, with the following program: Sailing boats and auxiliaries, 4 miles, free for all; high speed boats, 20 miles, American Power Boat Association, for \$500 East Coast cup; charter row boat races; pleasure row boat race; fishing boats, sailing.

In the evening of Thursday will occur the night parade. There will be evolutions around the house boats to the accompaniment of band playing. Three prizes will be awarded for decorations.

CONTEST AMONG MAKERS

Prizes Being Offered Abroad to Makers of Tires and Bodies for Worthy Improvements

Paris, France, Dec. 22—While the greatest of all the salons held in Paris is drawing to its end, and while manufacturers and dealers seem to be well satisfied with the amount of business done during the show, much interest is shown by all classes interested in the industry, in the donation of valuable cups, one to apply to bodies and the other to tires.

The competition for these widely different objects promises to be very keen, and confidence is expressed that it will have a decided effect upon the industry and may lead to an unexpected transformation of methods in the making of tires and bodies. It is claimed that

chassis and of the car complete will constitute the weight of the body.

The other cup, or rather trophy, has been offered by the body makers and will be awarded to the manufacturer of the best tire for a big touring car. A committee of nine members, including three delegates from the Automobile Club of France, three from the body makers' board of trade, one from the automobile board of trade, one from the Touring Club of France, and one from the General Automobile Association, will prepare rules and regulations, but it can be stated now that among the rules there will be one requiring the tires to be used upon a tour of a given mileage, that the tires must be easily fixed and taken off, that they must especially be able to undergo tests of resistance.

This competition is the direct result of the Michelin cup, as the body makers have taken exception at some remarks made by the French



A GLIMPSE OF RECORD BEACH—WINTER MOTORISTS WHERE THE SEA ROLLS UP TO ORMOND

There will be a flower carnival and day parade on Friday, following the races scheduled to be: Endurance race, all motor boats, based on speed, reliability and facility of operation; all motor boats, under 12 miles, 1 mile dash; high speed, 1 mile dash; motor boats, under 12 miles, 4 miles; American Power Boat Association handicap.

Saturday will mark the start of the proposed endurance run to Miami, Key West and Havana, with races at each of these points. The putting through of this service list will depend on a future decision of its practicability and the willingness of owners to make the entry and have a try. Racing in Havana harbor, however, is pretty well assured. Among the sure starters in the high speed classes will be Proctor Smith and Challenger, W. Gould Brokaw and Frank Croker with Xpdne. It is probable that W. S. Kilmer and Vingt-et-Un, H. L. Bowden and American Mercedes and Standard will also be competitors.

The Cuban carnival is set for February 9, 10, 11 and 12. Its chief feature will be the 100-mile road race, to be run on Saturday, February 12, between Mariano, a Havana suburb, and San Cristobal, a distance of 80 kilometers, or 50 miles, which will be traversed twice. A control will be established at the San Cristobal end, and the start home will not be made until the last survivor has finished. The winner will be determined by the fastest aggregate time scored. This wonderful limestone course for automobile racing has already been described in MOTOR AGE.

It is lined with kilometer posts and telephone service along it is already at hand. A 15-kilometer handicap and a 20-kilometer scratch race will also be run over it.

There is to be straightaway racing on the Prado, the boulevard running from the harbor entrance through the city. The tentative program arranged is ¼-mile, ½-mile and 1 mile, two in three, and 5 and 10 kilometers.

when it was decided that racers must not weigh over 1,000 kilos in order to be acceptable as competitors in the Bennett race, it resulted in completely changing the manufacturing process of the powerful road monsters. The same change is expected to result in the building of big touring cars. The problem confronting the tire maker is, however, a much more difficult one, as the latter have been working many years in an endeavor to find the material which will lead to the making of the non-troubling and puncture-proof automobile tire.

Andre Michelin, the tire manufacturer, has advised the Automobile Club of France that he offers a trophy, worth about \$5,000, and to be known as the Michelin cup, to the maker of the body which is the lightest, but which must be made by following certain rules, which are to be made up by a commission of seven members, including three delegates from the Automobile Club of France and one each from the three automobile and cycle boards of trade and the Touring Club of France.

While the rules have not yet been prepared, Michelin's intention is that the regulations be changed every year to correspond with the tendency of the market. For instance, as the demand for next year's cars is especially for vehicles seating six persons, the competition should embrace such kind of bodies. The horsepower of the motor will always be one of the important regulations, while the comfort of the body will be considered an important factor. Only French body builders or automobile manufacturers who make their own bodies may take part in the competition, and the winner will be designated by the committee before October 1 of every year, so that he may be able to exhibit the body at the annual show. The trophy will remain in the possession of the winner 1 year. As the weight of the body will be the base of the award, it was decided that the difference of the weight of the

tiremaker, who claimed that body makers have been steadily making heavier bodies, following almost entirely the wishes of the automobile users, instead of also taking into consideration the possibility to carry the heavy weight which they are asked to support. The body makers claim the automobile manufacturers have readily increased the power and weight of motors, the chassis have been made longer in order to be able to put larger bodies on them. The automobilists on the other hand have become more and more exacting in their demands for comfortable bodies. At first they were satisfied with large seats, soft and fine upholstery; then they became tired of the rear entrance, and the side entrance became the vogue. At first the bodies with side entrance were made simply with the side entrance in view, but now the tourists want all the comfort of a first-class railroad coach, with plenty of room to accommodate baggage and supplies for the car.

In their letter to the Automobile Club of France concerning the tire trophy, the body makers say that at present automobile makers send them chassis having on the average motors of 20 horsepower, and able to carry a limousine having four seats. The chassis weighs generally 2,420 pounds. In adding the weight of 40 litres, 84 pints of water; 50 litres, 105 pints of gasoline; 10 litres, 21 pints, of oil and several pounds of lubricant, the weight of the chassis and extra supplies generally taken along is 2,640 pounds, not including the body, the spare parts and the occupants. If the average weight per person is 155 pounds, the six persons the chassis is to carry will add 930 pounds and the luggage and extra parts about 220 pounds more, or a total weight of 3,790 pounds without body.

The simplest side entrance body, with space on the top to carry baggage, with front glass, lanterns and projectors, and all the absolutely necessary accessories, will weigh 880 pounds.

AWARDS AT PARIS SHOW

Important Makes of Foreign and Local Cars Receive Gold, Silver and Bronze Medals—American Chassis Most Expensive Shown at Salon—Prevailing Prices of Well Known Chassis

Paris, France, Dec. 24—The jury which decided upon the awards to be made to the manufacturers of cars at the Paris salon examined 331 different machines, exhibited by more than 120 concerns. The comfort and elegance of the vehicles were especially considered, and this year the work of this special committee was difficult, inasmuch as there are so many beautiful cars.

In the report on the 331 automobiles it states that only thirty-eight of the vehicles have either rear or front entrance, the other 293 having side entrance. Of the latter, ninety-six are double phaetons, sixty-nine coupe-limousines, twenty-seven landaulets with two seats, twenty-five coupes with two seats, twenty limousine parlors, seventeen landaulets with motor under the seat, eleven limousine-landaulets, nine landaulets, seven cabs, three coupes, two coupes with motor under the seat and one landau. Of the other thirty-eight vehicles, thirty-three are either small cars or vehicles with tonneau and rear or front entrance, four are limousines or have other kind of closed bodies, while one is an omnibus.

The length of the chassis was found to vary from 94½ to 102½ inches with the majority of the cars. The double phaeton and the coupe-limousine are the most popular cars exhibited and some of them are as finely made and finished as jewelry. While recognizing that there are a few splendid specimens of "roulottes" or Pullman style cars the jury does not encourage makers building this kind of vehicle at present, owing to their extra heavy weight, their dimensions and the fact that there are no wheels or tires sufficiently strong to carry the weight.

Electric vehicles show a good deal of improvement, the principal being that the chassis are lighter and more elegant and the accumulators have been more dissimulated. In general the electrics do not look so clumsy and heavy as heretofore. The following medals have been awarded by the jury:

GASOLINE AND STEAM CARS

Gold medals—Charron, Girardot & Voigt; Delaunay-Belleville, Ducommun, Mors, Renault, Westinghouse.

Gold plated silver medals—Bollea, de Dietrich, Hotchkiss, Mercedes, Panhard & Levassor, Georges Richard-Brasier.

Silver medals—Adler, Aries, Berliet, Brouhot, Delaugere & Clayette, Florentia, Germain, Herald, La Locomotrice Peugeot, Schreiber, Turgan.

Bronze medals—Ader, Argyll, Bayard-Clement, Benz, Bolide, Boyer, Chenard & Walcker, Clement, Cudell, Darraeq, Decauville, de Dion-Bouton, Delahaye, Desmarais & Morane, Fiat, Gardner-Serpollet, Gillet-Forest, Gladiator, Gobron-Brillie, Horne & de la Buiere, Industrie Mecanique, Isotta, Franchini & Co., Legros, Martini, N. A. G., Pivot, Pope-Toledo, Rolls, Rossel, Roy, Sage, Svelte.

ELECTRIC VEHICLES

Gold medals—Gallia.

Gold plated silver medals—Electromotion, Krieger.

Silver medals—Drouelle & Co., Vedrine.

Bronze medals—Milde, Scheele.

BODY MAKERS

Gold medals—Millon-Guilet.

Gold plated silver medal—Audineau & Co., Beuzelin & Co., Driguet, Sr.

Silver medals—Garnier, E. Vicart, Jr.

Bronze medals—Bargin & Beckerick, Botiaux & Co., Carrosserie Industrielle, Driguet, Jr., Lamplugh & Co., Rheda.

Of the fifty-six medals awarded gasoline and steam automobile manufacturers, forty-two went to French concerns, six to German houses, three to Italian manufacturers, two to makers of Great Britain and one each to an American, Swiss and Belgian concern. In this connection it is interesting to note that no foreign makers were awarded a gold medal and that the highest award to a foreign manufacturer was a gold plated medal, which went to one of the six successful German houses. It may also be interesting to mention the fact that Germany secured the largest number of awards in proportion to its number of exhibitors, and the fear expressed by French papers that Germany will soon become a dangerous competitor seems to have been no idle dream.

It is interesting to note that an American car, the 60-horsepower Pope-Toledo, is the most expensive vehicle exhibited at the salon of 1904, notwithstanding the fact that more powerful chassis are displayed. From statistics of only seventy-five of the leading French exhibitors, six from Germany, three from England, three from Italy, four from Belgium, two from the United States, two from Switzerland and one from Holland, it appears that the average price of the thirteen 6-horsepower chassis exhibited is \$725, the most expensive being the Wolseley, costing \$1,020, and the cheapest being the Bailleau at \$540. The average price of the three 7-horsepower chassis shown is \$1,106, the Panhard & Levassor being the highest, at \$1,360. Twenty-nine 8-horsepower cars are exhibited, and the average price is \$1,049, the Panhard being the most expensive at \$1,800. The 10-horsepower Panhard is again the most expensive chassis among the thirty-eight shown in this class, its price being \$2,300, while the average price of all is \$1,389.

There are thirty-nine 12-horsepower chassis, among these ninety-six exhibitors, their average value being \$1,500 and the highest \$2,500. The average price of the fifteen 14-horsepower chassis is \$2,053, the most expensive being \$2,900. Among the fifteen 15-horsepower chassis which average \$2,299, the most expensive are the Panhard, the Marvel and Radia, each costing \$3,000. Thirty-seven 16-horsepower chassis average \$2,492, and the most expensive one cost \$3,300. There are twenty-one 18-horsepower chassis, an average of \$2,670 and \$3,600 as highest price, this applying to the Benz, Panhard and Louet. While there are only two 22-horsepower chassis, their price averages the same as that of the twenty-six 20-horsepower chassis exhibited, it being \$2,900. Among the former the record belongs to the Berliet, with \$3,000 while among the latter the Westinghouse chassis cost \$4,600.

The 24-horsepower Benz chassis at \$4,800 is the most expensive among thirty-one shown, which average \$3,240. The six 25-horsepower chassis aggregate \$24,000, or an average of \$4,000, the C. G. V. being the highest price

at \$4,400. Only five 28-horsepower chassis are to be found among the exhibits of the ninety-six concerns. The average of each chassis is \$3,592, the Mercedes costing \$5,000, while the Bolide cost only \$1,960. The 30-horsepower chassis seem popular, as there are twenty of them, their average value being \$3,710, while the highest price chassis shown is the Hotchkiss at \$6,000. Ten 35-horsepower chassis average \$4,800, the Benz and the Panhard costing each \$6,000. There are nineteen 40-horsepower chassis averaging \$5,285. The highest priced among these chassis is the Pope-Toledo at \$6,700.

The 50-horsepower Pope-Toledo at \$12,000 is the most expensive and the Direct at \$3,000, the cheapest among the five chassis with such horsepower exhibited. Their average is \$6,640. Five 60-horsepower chassis averaging \$7,200 are shown, and the most expensive is the Panhard at \$9,000. The makers of the Mercedes, the Louet and the Delaugere are the only firms having 70-horsepower touring chassis; their average price is \$8,200, while the most expensive of the three is the German-made, at \$9,000.

A comparison with the prices of chassis at the salon of 1903 shows that the price of the Mercedes has dropped \$2,000 for its 28-horsepower chassis and \$3,000 for its 40-horsepower chassis, while last year's 60-horsepower chassis cost \$2,000 more than this year's 70-horsepower chassis. The prices of the Panhard, Mors, Renault, Darraeq and some other chassis are the same as last year.

While the record for the highest price car among all those shown by ninety-six manufacturers belong to an American-made machine, the Oldsmobile runabout holds the record for the lowest price 7-horsepower car exhibited, the cost being \$800, the next cheapest costing \$360 more and being \$560 cheaper than the third chassis in that class.

RECENT INCORPORATIONS

Colorado Springs, Colo.—Miller-Wilson Automobile Co., capital \$10,000. Incorporators H. A. Wilson and R. A. and L. B. Miller.

Buffalo, N. Y.—Frontier Gasoline Motor Co., capital \$10,000. Incorporators Louis Duero, W. H. Ahlers, George F. Graf and Oscar R. Cheney.

Milwaukee, Wis.—Curtis Automobile Co., capital stock \$10,000. Incorporators Orin L. Curtis, Harry Landauer and Frank Thanhouser.

Syracuse, N. Y.—Iroquois Motor Car Co., capital \$450,000. Directors Thomas W. Pelham, Charles T. Blanchard and Leonard F. Mahan.

New York, N. Y.—D. W. Payne Controller & Engineering Co., capital \$48,000; to make motors. Incorporators D. W. Payne, E. P. Hampson and W. A. Robinson.

Detroit, Mich.—Edmunds & Jones Mfg. Co., capital stock \$6,500, of which \$3,375 has been paid in cash and \$2,000 in property. Formerly known as Edmunds & Jones, makers of automobile and coach lamps and generators.

Columbus, O.—Evans Automobile Co., capital stock \$50,000.

Springfield, Mass.—Geisel Automobile Co., capital \$40,000. Directors Adolph A. Geisel and Theodore R. Geisel.

Springfield, Mass.—E. R. Clark Automobile Co., capital \$10,000. Directors Ralph W. Stoddard, Edward R. Clark and Edward A. Stoddard.

IMPORTATIONS DOUBLED

New York Customs Officials Give Figures on Receipt of Foreign Cars During Year 1904.

New York, N. Y., Jan. 3—According to George W. Whitehead, appraiser of the port of New York, 1904 was a banner year in the importation of foreign-built automobiles. More than 500 cars were entered at the custom house, valued at \$1,700,000, which is double the importation of last year.

That the increase is phenomenal may be seen by a comparison with the previous year, when the automobile imports at New York were 253 machines, which the appraiser found to have a total value of \$800,000. Notwithstanding the heavy importations of horseless vehicles the last 12 months, customs officials say they have information that at least 700 automobiles will be brought to this city from abroad this year. France and Germany are the principal exporters of machines to this country, with Italy third.

The framers of the Dingley tariff law failed to make specific provision for automobiles. In 1897, when the present tariff act was being drawn up, the automobile was of such little consequence, either for pleasure or business, that it was left out of the measure altogether. When the first automobiles began to come in customs officials were puzzled to know how to classify them. The practice, however, evolved on collecting duty on automobiles at 45 per cent under the tariff provision for "manufactures of metals."

The probability is that when the existing tariff comes to be rewritten the automobile will receive specific recognition. While the machinery, engine and other parts of the machine at present govern the classification for dutiable purposes, importers have not been slow to avail themselves of the lower duties by dismantling the machines and entering the parts separately. Thus, for example, the tires of an automobile often possess a value of \$1,000 or more, and when imported attached are included by the customs officials in the total estimate of value and assessed at 45 per cent. When detached, however, the tires may be entered as "manufactures of rubber" with only a 30 per cent duty. Similarly the body of an automobile stripped from the running gear prior to importation is admitted as a wood manufacture.

Harvey T. Andrews, assistant appraiser of the ninth division of Appraiser Whitehead's office, who is charged with the immediate examination and appraisal of automobiles, said yesterday that naturally the appraised values of the automobiles as returned to Collector Stranahan give an inadequate idea of the price paid to agents on this side of the public.

MAKES GOOD SELLING POINT

Washington, D. C., Jan. 2—The National Automobile Co., of this city, which controls the sale of the Oldsmobile in Maryland and other territory in this vicinity, recently received an application from a Maryland man for the agency for the Oldsmobile in his section of Maryland. The applicant was very desirous for the agency, but he wanted to defer the matter until spring, saying "that on

account of the severe weather of an early fall and the consequent early breaking up of the roads in our neighborhood, little use could be made of a machine until spring, when the roads would settle and get in good shape."

In answering the applicant Manager Wood brought out a point that is worthy of the attention of the trade throughout the country. He said: "We note what you say relative to the severe weather conditions, etc., and your intention to take the matter of an agency up in the spring, but are led to suggest that you are making the same error which has cost too considerable a number of automobile dealers a large amount of business, that is, in fostering the idea the public has that the automobile is only a 'fair weather and good roads condition' method of conveyance. It can be easily demonstrated that under these conditions an automobile can be used to far better advantage than can a horse. To the fact that during the particularly severe weather of the past few days every car in use by us was kept running we owe two good sales closed to-day. We know of no greater error than that of acknowledging that the roads and seasons must be picked for the automobile."

GOVERNMENT A STUDENT

Washington, D. C., Jan. 2—Some timely information anent alcohol carbureters and motors in France has been received by the government, from which it is learned that in spite of official encouragement alcohol motors and carbureters may be said to remain to-day incompletely developed. Many manufacturers have their particular form of carbureter, but it appears that one device is in greatest demand; yet even of this type, out of 60,000 carbureters sold only 500 were intended for the consumption of pure alcohol, all the others being destined for the use of gasoline or of carbureted alcohol. The sale of alcohol motors has been equally unimportant. Probably 100 petroleum or gas motors are sold to one alcohol motor, for three reasons: The high cost of the alcohol; the greater consumption per horsepower hour than of either petroleum or gas; the difficulties arising from oxidation.

The principle upon which the alcohol carbureter referred to operates is the same as of the carbureter for gasoline. These carbureters are manufactured for motors of from 4 horsepower upward; they differ from the form intended for use with gasoline, etc., in that the reheating system is more intense. They operate as regularly as the other carbureters. In their application to motors their advantages and disadvantages are thus described: Additional suppleness in movement, but increased consumption as compared with gasoline; initial heating of carbureter necessary; possible oxidation of plugs, pistons, and piston rings, unless care be taken to run the motor with gasoline during the last moments of use.

The motors operating with alcohol comprise two categories—stationary motors and motors of automobiles. The latter are the same as those designed for the consumption of gasoline with another form of carbureter.

A method of using alcohol has lately been tried in France, consisting of forcing the alcohol at a desired temperature through a vaporizer in a quantity strictly measured to meet the machine's need at the moment. At the last public competitions for a 6-horsepower motor the consumption was 410 grams per horsepower hour, as against 578 grams with the carbureter above referred to.

SHOW DETAILS COMPLETE

Big Exhibitions in Madison Square Garden and Herald Square Hall To Be Grand

New York, N. Y., Jan. 3—Racing cars are always of interest, and the exhibition of them at the Madison Square garden automobile show, beginning January 14, will be one of the most complete the industry has ever seen. Cars that have supplied railroad speed when piloted by daring operators will rest peacefully beside their brethren of lesser power, with the mechanism exposed for the crowd's inspection.

Among the flyers will be the Peerless Green Dragon, with which Barney Oldfield won the track championship and established world's records up to 50 miles; the Winton Bullet; the Pope-Toledo, which H. H. Lytle guided to third place in the Vanderbilt cup race; the diminutive 20-horsepower Ford, made famous by Frank Kulick's victory with it on Empire track against cars of four times the power; the speedy Panhard, with which Geo. Heath won the Vanderbilt race; the 90-horsepower Pope-Toledo entered for the Bennett cup race; Frank Croker's Simplex racer, that holds all the amateur track records; the Packard Gray Wolf; the Franklin car, which established a new trans-continental record, and the Columbia machine that reduced the Chicago-New York record to 58 hours 35 minutes.

The attention of visitors to the New York show is called to the fact that only those who are members of the American Automobile Association or the American Motor League may take advantage of the reduced railroad rates granted to those organizations. No reduced rates have been or will be granted by the passenger associations on account of the show, and they will be granted only to members of one or both of the national organizations.

All arrangements have been completed for the importers' show, which will open to the public at the Herald Square hall on Wednesday, January 11, and continue to January 25. At this show will be exhibited almost all the foreign cars now selling in this country. Among the imported cars that will be shown are: Argyll, Berlist, Bollee, C. G. V., Bayard-Clement, Darraeq, Decauville, de Dietrich, Delahaye Electromobile, Fiat, Gobron-Brille, Hotchkiss, Martini, Mercedes, Mors, Napier, Panhard, Pipe, Puegot, Renault, Richard-Brasier, Rochet-Schneider, Westinghouse, representing the industry of France, Germany, Italy, England, Switzerland and Belgium.

AFTER BUFFALO SPACE

Buffalo, N. Y., Jan. 3—Applications for space at the Buffalo automobile show to be conducted next March are pouring in upon Manager Lewis. The application blanks were mailed last Thursday. By Saturday noon the following out-of-town concerns had made formal request for space: Rose Mfg. Co., Philadelphia, Pa.; Gray & Davis, Amesbury, Mass.; Hartford Rubber Works Co.; Prescott Automobile Mfg. Co., New York. From Buffalo the following firms have applied for space: O. K. Machine Works, W. C. Jaynes Automobile Co.; Standard Oil Co., Poppenburg Automobile Co. In addition to the Hartford company the Goodrich, Fisk, Diamond and Goodyear tire companies have signified intention of making exhibits at the show. Last year there were no tire exhibits.

CURRENT GOSSIP OF THE GARAGES

Has Columbia Electric—The Toledo Motor Car Co., of Toledo, O., signed last week for 1905 for the Columbia line of electrics.

Wants Many Cars—C. S. Henshaw, New England agent for the Thomas, visited the factory in Buffalo, N. Y., last week for the purpose of securing all the cars the concern will accept orders for.

Old at the Game—It was erroneously stated that E. R. Cumber was a new agent for the Rambler cars in Denver, Colo. Cumber has handled the product of Thomas B. Jeffery & Co. since it has been on the market and has been connected with this concern and the Gormully & Jeffery Mfg. Co. for nearly 20 years.

Wayne in New York—A new agency in New York is the one for the Wayne, controlled by A. T. Sharpes and L. C. Howard. The two models are expected to be good sellers. Howard & Sharpes believe the four-cylinder 30-horsepower car will be one of the best sellers of 1905. It weighs only 1,700 pounds, having 1-horsepower for each 61 pounds of weight.

New Fisk Tire Takes—The Fisk Rubber Co. has opened a branch at 754 Seventh avenue, New York, and already its new style of tire is the talk of the trade. J. W. Bowman, the general eastern sales manager, told the MOTOR AGE man that although the tire cost more than any other on the market the individual users are beginning to appreciate that it is the cheapest in the long run. An outer tread which can be replaced when worn out is the feature of the tire.

Mead's New Line—The Mead Cycle Co., of Chicago, Ill., has secured the agency for Chicago and its tributary territory for the Moline and Gale cars. The Moline is made by the Moline Automobile Co., of East Moline, Ill., in three models—a four-cylinder vertical 24-horsepower touring car, seating five persons; a four-cylinder vertical 18-horsepower light touring car, and a double-cylinder opposed 12-horsepower runabout, with or without tonneau. The Gale is an 8-horsepower single-cylinder runabout, made by the Western Tool Works, of Galesburg, Ill.

Buffalo Garage Changes—Although the greatest number of announcements of new agencies will doubtless be made during and immediately after the shows, several important changes have been made in the Buffalo trade situation in the last few days. The Centaur Motor Co. has taken the agency for the Peerless, which has been sold there by Charles W. Roe. The latter will continue to handle the Autocar and to conduct a large garage and repair business. The Centaur people have received a new Packard, which is retained as part of their line for 1905. The Yale, Franklin and Cadillac will be sold by the Centaur company, as heretofore, and it is expected one or two other cars will be added to the list by the last of this month. The Pope-Toledo, which has been sold at the store of J. A. Cramer, by the Bison Motor Co., will move to the fine big store of W. C. Jaynes, who has been selling the Winton and Oldsmobile. Cramer and the Bison company will have the Ford and Marion and possibly others. Meadows & Hafer have engaged to

sell the Reo car. The Maxwell car has been placed with a Buffalo retail dealer, but the identity of the agent has not been announced.

Carriages and Automobiles—The F. O. Bailey Carriage Co., of Portland, Me., will handle the Rambler cars exclusively this year, and will have the exclusive agency for the state of Maine.

Changed Name—Since the first of the year the name of the Ford Automobile Co., of Boston, Mass., has been known as the P. A. Williams, Jr., Co. The concern has secured the New England agency for the Marion car, but will also handle the Ford, as during the past year.

New Milwaukee Concern—Harry Landauer and Orin L. Curtis have formed the Curtis Automobile Co., in Milwaukee, Wis. A building will be rented on Grand avenue, where the new concern will engage in a general automobile business. The agency for the Mitchell cars has been secured.

Swinehart in Chicago—The Swinehart Clincher Tire & Rubber Co., of Akron, O., has opened a branch in Chicago, Ill., at 1251 Michigan avenue, in the building occupied by the Knox Automobile Co. Alexander G. Hendel, in charge of the branch, formerly represented the Akron concern in Minneapolis, Minn.

Newark Changes—A new garage has been opened in Newark, N. J., at 304 Springfield avenue, by Charles Krebs. The Reo car will be handled in Newark by I. D. Plank, who will open a store at 518 Broad street. L. J. Wyckoff has secured the agency for the Premier and for the Ford, but will not handle the Orient buckboard, for which he had the agency in 1904.

Two Quick Sales—A. L. Kull & Co., doing business in Washington, D. C., as the Ford Automobile Station, have added the Wayne car to their 1905 line. The first car was received this week and two sales were made before it had been on the floor 2 days. Mr. Kull and a party of fifteen Washingtonians will leave next week in a private car for a trip to Mexico, where they will inspect certain mines the party are interested in.

Ezra Is Hopeful—"The outlook for good business during the season of 1905 is very promising," said Ezra Kirk, of the Kirk-Hall Co., Toledo, O. "In substantiation of this I cite you to the large number of inquiries which have been coming of late. There are many prospects in view, and from a conservative standpoint I would say that Toledo automobile dealers will dispose of at least 300 machines during the coming season, about 150 of which will be sold in the smaller towns in this section outside of Toledo."

Four Good Lines—A new garage building will be erected at the corner of Louis and Ottawa streets, Grand Rapids, Mich., for the Michigan Automobile Co., which has occupied the premises at Fountain and Division streets during the last 3 years, but which have now become too small for the business done by the concern. It is expected the garage will be able to accommodate more than 100 cars and a feature of the new building will be the repair department, in which a special tire-repairing section will be ar-

ranged. Besides handling the Pope-Toledo and Cadillac, the company will handle the White and Buick.

Near Marryingville—The Oldsmobile will be handled in Benton Harbor, Mich., by the Pioneer Automobile Co., which will soon open a new garage on Elm street.

Thank You!—"I consider MOTOR AGE the best automobile journal published. It suits me the best of any."—Burton O. Gamble, manager of the Toledo Motor Car Co., Toledo, O.

Pipe Car Arrives—L. J. Haller, New York agent in this country for the Pipe car, has received a 90-horsepower racer, which will be driven by Charles Duplus, who was one of the contestants in the last Bennett cup race.

Fine Iowa Garage—One of the finest garages and repair shops in the state of Iowa is the new building of the Iowa Automobile Co., of Ottumwa, which has the state agency for the Ford. The building can accommodate twenty-five cars. The officers of the company are: W. E. Hunt, president; J. F. Dings, vice-president; E. H. Emery, secretary and manager; B. P. Brown, treasurer. G. L. Craft has charge of the repair department.

Received Sample Packard—The National Automobile Co. announces that it has completed arrangements with the Packard Motor Car Co. to represent that company in Washington, D. C., for 1905. The first sample of this car was received in Washington last week and many automobilists availed themselves of the opportunity to inspect the car. Manager Wood, of the National concern, sent out several thousand cards containing a cut of the 1905 model, together with a description of the car. The card was addressed to "Automobilists, present and prospective."

Jersey Deals Closed—The Auto Shop, of Paterson and Newark, N. J., has practically closed for the same line it carried last year for the counties of Essex, Morris, Bergen and Passaic. Contracts were signed last week for the Columbia, and other cars to be sold by the Auto Shop will be the White steamer and Knox. The Oldsmobile will be sold from the Paterson headquarters and a licensed runabout will be taken on for the Newark territory. The Camden Motor Co., of which J. G. Reeves, the old time Columbia bicycle agent, is agent, has closed with the Thomas car for this season in this territory. This is the only line the company has closed with but other cars may be taken on later.

This May Cause Revolt—In order to properly enforce the uniform garage rates that have been adopted by the New York Automobile Trade Association, a committee has been appointed to investigate and report on a plan which will require each member to put up a cash bond, probably \$1,000, to be forfeited in case he cuts the rates in any way. It was intimated at the association's last meeting that some garage owners might charge the regular rates and then grant a commission of some sort. The committee is expected to cover such action in its report to the association. The opposition to commissions was on storage and repairs and not against the sale of cars, which is considered a legitimate part of the business.

New Building Planned—The Scranton Garage & Motor Car Co., recently incorporated in Scranton, Pa., with a capital of \$25,000, will have a special building erected for its use. Runabouts and touring cars will be handled by the concern, which will also do a repair business.

South Interested—The first of the 1905 models has been received in Nashville, Tenn., and is attracting attention on the streets. It is a new 15-horsepower White steamer and its attractiveness has caused several orders to be booked. The south is turning its attention to a better class of cars than formerly and is rapidly dropping the runabout in favor of a four seated car.

Out for Trade—A strong bid for trade is being made by the Harrolds Motor Car Co. which has the agency in New York for the Oldsmobile and Pierce. The salesroom takes up a block on Broadway, from Fifty-eighth to Fifty-ninth street and is in charge of Harry Unwin, former secretary of the National Association of Automobile Manufacturers. A vigorous advertising campaign has been started which is already showing excellent results. The garage will be at 152 West

Twenty-sixth street conducted by Woolston & Brew. Mr. Unwin's assistant is R. G. Howell, who was manager of the Oldsmobile branch in New York last year. R. W. Shusser, who represented the N. A. A. M. at the St. Louis exposition, has also joined the Harrolds company.

Will Drive Stock Car—As his 60-horsepower Thomas Flyer will not be ready in time for the Ormond meet, Harry Houpt, the New York agent for that car, will compete in the touring car events with one of the regular 40-horsepower cars. Fred Titus will have charge of the branch in his absence.

Big Victoria Garage—A project is on foot among a number of prominent motorists of Victoria, B. C., to form a company capitalized at \$50,000 to build a large garage and operate an automobile livery. The scheme has reached that stage where enough capital has been raised to go ahead. The promoters plan to spend about \$10,000 in the erection of a large building, which will be thoroughly equipped with all machinery and appliances to carry on all kinds of repair work. At the start it is intended to put in about ten cars in commission in the livery department. It is said by those

in a position to know that English cars will be used exclusively in this garage, as the men behind the project seem to have an antipathy for American cars. The saving on duty is also alleged to be another important reason.

New Garage Open—W. A. Copeland, of Pontiac, Ill., recently opened his new garage. It will probably be remembered by many motorists who were on the St. Louis tour this summer that his old garage burned the night of the arrival of the tourists. The newly-built automobile station is simple in construction yet most up to date. Copeland has the agency for the Rambler, Ford and Overland cars.

Australian Dealers—The leading dealers in Koolgardie, Western Australia, interested in automobiles and motor cycles are: Armstrong Cycle and Motor Co., Canada Cycle and Motor Co., Davis-Franklin Cycle Co., Mortlock Brothers, Baxter & Co., and the Goldfields Cycle Co. A dealer from that city says that it is absolutely necessary that motor cars have at least 23 inches clearance from the ground and that they have wheels to run in 3 feet 6 inches and 3 feet 8 inches car tracks.

MANUFACTURING MISCELLANY

Adopts Color Scheme—The H. H. Franklin Mfg. Co. is sending to its agents samples of the red and green colors which will characterize the Franklin car for the coming season.

Senior Member Dies—George P. Richardson, of Crane & Richardson, 112 Water street, Boston, manufacturers of Crane's Puller, died suddenly last week. Mr. Crane writes MOTOR AGE that despite this serious loss he will continue the business along the previous lines.

Make Everything—The Democrat of Sturgis, Mich., has the following notice: "White Pigeon will have an automobile factory conducted by the Ricketts family, formerly of Niles. They will manufacture the Pigeon automobile, automobile engines, special machinery, the J. R. transmission, stationary gasoline engines and general machine work."

New Motor Company—The American Gasoline Motor Co. has been organized by Florian J. Mantel and Emery Van Epps of Syracuse, N. Y., and William F. Marvin and A. J. Tooley of Baldwinsville, N. Y., for the manufacture of motors for boats and automobiles. The factory will be located at Baldwinsville, where the company has secured space in the factory of the American Knife Co., which has a large building. There is a movement to develop Seneca river as a summer resort and a large number of new motor boats will be built.

Iroquois Company Incorporated—Papers have been filed with the secretary of New York state incorporating the Iroquois Motor Car Co., of Syracuse. This company will take over the stock of the J. S. Leggett Mfg. Co. and will locate at Seneca Falls. The capitalization is \$450,000, of which \$150,000 is preferred and \$300,000 common stock. Charles A. Fox, of Syracuse, promoted and organized the company and the incorporators are Thomas W. Pelham and Frank H. Clement of Buffalo, Charles T. Blanchard and L. Frank Ormsbee of Syracuse, and Leonard F.

Mahan of Fayetteville. It was expected that the manufacture of cars would begin January 1.

Had Too Much—The Merkel Motor Co., of Milwaukee, Wis., has decreased its capital from \$200,000 to \$100,000. The board of directors has been increased from three to five members.

Changed Its Name—The General Automobile Co., which was recently organized in Rochester, N. Y., has changed its name to that of United States Automobile Co., owing to the fact that a corporation in New York bears the name of General Automobile Co.

Experimenting—It is reported from Rantoul, Ill., that Joseph Wallace, Seeley Gulick and George Brown of that locality are now finishing an automobile of their own design and if it proves satisfactory will try to interest capitalists in the matter of forming a company.

Employs Hundred Men—The Brown-Lipe Gear Co. of Syracuse, N. Y., is now employing 100 men and its trade is rapidly increasing. The company will have exhibits at the New York and Chicago shows. Three traveling men are looking out for the interests of the company.

Buses for Cuba—The Knox Automobile Co. of Springfield, Mass., has recently received a large order for cars from the West Indies Transportation Co., to be used for carrying passengers and merchandise on a 62-mile route around Havana, Cuba. The vehicles will have to stop at thirteen localities on the round trip.

Rambler for a King—The foreign business of Thomas B. Jeffery & Co., of Kenosha, Wis., makers of the Rambler, is reported an important part of the business. Last week shipments went forward to South Africa, Australia, New Zealand, India, Italy and Siam. Last year 100 cars were shipped to the Orient alone. One of the most distinguished customers of the American concern is the king of Siam, to whom a 1905 car with

canopy top and all the latest improvements was shipped.

Fauber to Reorganize—It is reported the Fauber Mfg. Co. will be reorganized. The plant, which was located in Elgin, Ill., was destroyed by fire several months ago. It is now said that the new factory will be located in LaPorte, Ind. The Fauber company made the Marr.

Now Incorporated—The Edmunds & Jones Mfg. Co., of Detroit, Mich., has recently been incorporated with a capital stock of \$6,500. Edmunds & Jones was the name of the concern before it was incorporated. Automobile lamps, coach lamps, generators and other similar wares are manufactured.

Business Divided—The Overland Rubber Co., 1735 Arapahoe street, Denver, Colo., will handle the full line of tires made by the Diamond Rubber Co., while the Denver branch of the Akron concern will continue to handle belting, hose and other rubber goods including tires, but not clincher or single tube automobile tires.

New, Not Changed—The Springfield Hat & Cap Co. of Springfield, Mass., has not changed its name to that of Rubber Appliance Co., as has been reported. The Rubber Appliance Co. is an entirely new concern, organized recently with a capital of \$50,000 for the purpose of manufacturing a rubber wash basin and water tank. Other similar articles will also be made by the concern.

Detroit Combination—The Cadillac Automobile Co., of Detroit, has absorbed the Leland & Faulkner Mfg. Co., which has previously manufactured motors for the Cadillac company. This consolidation is a part of the recent enlargements of the Cadillac company's manufacturing facilities, and includes the acceptance by Mr. Leland of the position formerly occupied by George W. Strellinger. The Leland & Faulkner concern has been known for many years as a manufacturer of different kinds of machinery of the highest class.

THE READERS' CLEARING HOUSE

COMPASS ON CAR

Los Angeles, Cal.—Editor *MOTOR AGE*—I would like to know through the Readers' Clearing House if a compass could be used on a touring car to show the direction the car is traveling. If placed as far as possible from the heavy iron parts, say, for instance, under the top, would not the magnetic needle remain true?—M. O. L.

Unless the compass were compensated by a compass adjuster it would not point correctly. This would have to be done by placing pieces of iron at various points to neutralize the magnetic action of the steel and iron in the car. If compensated for any one direction it would not be true for any other, so it would be necessary to develop a table of deviations for each heading and apply this to the index reading of the compass to get correct compass reading, as if the compass were on the ground isolated from the influence of metal. To be absolutely correct it would also be necessary to apply the local variation to the corrected reading to arrive at the true north. Variation is the difference between the true north and that shown by the compass in a specific locality, and is found on the government charts. Deviation is the error produced by objects close by or on the car, and may effect the needle one way or the other, depending upon the direction of motion.

USING OIL TWICE

Santa Fe, N. M.—Editor *MOTOR AGE*—Under my car I have a drip pan to gather the oil used by the engine. This oil serves afterwards in a wind mill. Will it be advisable to use this oil, after straining it several times, in the same automobile, or does the heat affect it so that it makes it worthless for that purpose? How many drops of oil should go per minute into the cylinders, and how many to main shaft? At what speed should the engine of a Stevens-Duryea car be run for best results?—J. M. DIAZ.

The oil obtained from the drip pan may be used a second time if thoroughly filtered, but *MOTOR AGE* advises reducing the quantity fed so as to minimize the waste and not use again. Adjust the feeds so that the cylinders get about twenty drops and the main bearings thirty to forty per minute. In case blue smoke issues from the exhaust cut down the cylinder feeds. When the car is new use an excess oil feed to all the motor bearings. The Stevens-Duryea motor operates satisfactorily at various speeds. It produces the best results at about 1,200 revolutions per minute.

REPAIRING PASTED CELLS

Springfield, O.—Editor *MOTOR AGE*—In cleaning pasted batteries, cannot new active material be pasted in the squares when the old has fallen out? If so, can you give the modern compound for positive and negative? Is this desirable when, as a whole, the plates are in good condition, except in a few spots?—A. S. K.

Clean the active material from the plates and apply a stiff paste of red lead and dilute sulphuric acid—one part acid and two parts water—to the positive grid. After filling stand the grid on end in a warm place for 24 hours to dry. To form the plate immerse in a concentrated bath of chloride of lime for 10

minutes and rinse with clean water. The paste for the negative plate is formed by placing a strip of zinc in a saturated solution of acetate of lead. The crystals which form on the zinc are gathered under water and pressed into the grid. Place the plates in position and the cell is ready to charge. In case a repair only is required the same process may be used in connection with the old active material.

MOTOR SPECIFICATIONS

Chicago, Ill.—Editor *MOTOR AGE*—Will you kindly give me the following dimensions for a four-cylinder motor to develop 15 brake horsepower: Bore, stroke, clearance, length of piston, valve diameters, proper speed? I have two cores for spark coils. One is $\frac{3}{4}$ by 9 inches with two layers of No. 16 B. S. G. wire for the primary, and the other is $\frac{5}{8}$ by 8 inches with the same winding. Which can be used to the better advantage? Of what should the secondary be wound? I thought of using the larger coil wound with No. 34 B. S. G. wire, in order to get a fat spark. The heads are $2\frac{7}{8}$ inches in diameter. How much wire should be used in the secondary?—JAMES IRVING.

A motor capable of developing 15 brake horsepower at 1,200 revolutions per minute would be one with a bore of $3\frac{3}{4}$ inches and a 4-inch stroke. Allow a clearance space in the cylinder head of 20 per cent of the piston displacement and make both valves the same size, $1\frac{1}{2}$ inches. This will give a free exhaust. The valve lift in this case should be $\frac{1}{4}$ -inch, which will give a smooth cam, using a base circle for the cam of $1\frac{1}{2}$ inches. *MOTOR AGE* would not advise the making of the spark coil, as there are so many details that will be liable to cause trouble. A good coil can be purchased very reasonably and will save much time and profanity.

TESTING VALVE SPRINGS

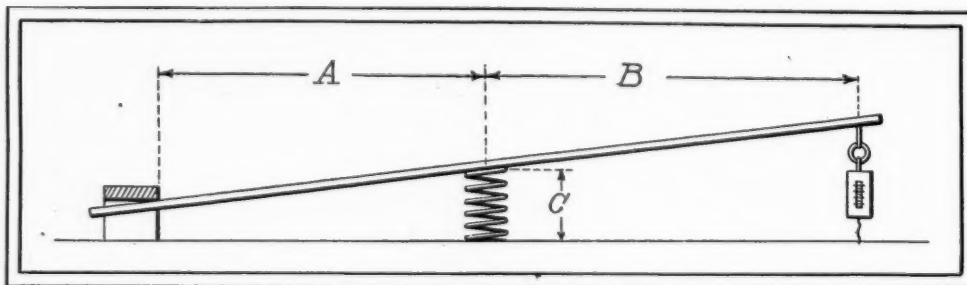
Ann Arbor, Mich.—Editor *MOTOR AGE*—I am building a four-cylinder 5 by 5-inch gasoline engine running at 1,080 revolutions and having mechanically operated valves of $1\frac{3}{4}$ -inch diameter and $\frac{1}{2}$ -inch lift. Are the valves of the proper size? To close the valves in the proper time what spring shall I use and how will it be rated? I figured the spring by a formula in Stoddard's Gas Engine Design and got an 80-pound spring, but I cannot tell if that is to compress it $\frac{1}{2}$ -inch or 1-inch, as springs are usually rated. Is splash lubrication sufficient for the piston pin, cylinder and main bearings? Would you advise the use of two piston rings at both the top and bottom of the piston, or would three at the top and one at the bottom be better? How much smaller than the diameter of the cylinder should the piston be ground?—JAMES F. SMITH.

An 80-pound spring should take care of the speed mentioned nicely. The tension should be 80 pounds when the spring is in place in the cylinder. To get the tension arrange apparatus as shown in the illustration by placing the spring under a board in such a way that it is between a fulcrum and a spring balance. Draw down on the balance until the distance C equals that of the spring when in position on the valve. The spring balance should then read 40 pounds, as the distance A equals B, and the scale is twice as far from the fulcrum as the spring. *MOTOR AGE* advises lubrication of the piston and bearings by some positive method rather than depending on splash. To lubricate the piston pin properly it should be made hollow and scrape oil from the cylinder walls. In the case of a hollow pin, rings below the pin are of no use. It is better to place three rings at the head end above the pin. These should be 5-16-inch wide. Grind the piston .010-inch small at the head end and .006-inch small at the crank end.

NOT ENOUGH POWER

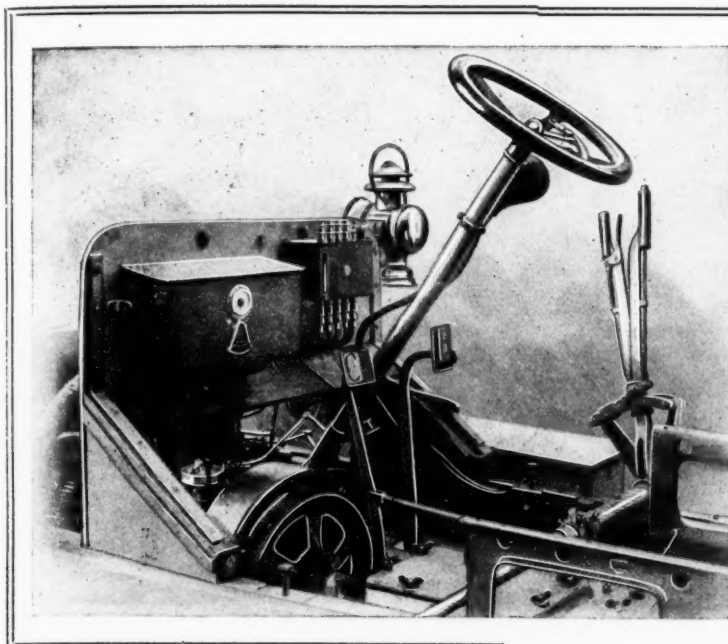
Bismarck, N. D.—Editor *MOTOR AGE*—Last winter I made a car, using a 4 by 5-inch two-cylinder motor. The car weighs 1,300 pounds and is geared to travel 5 inches at each revolution of the motor on low gear and 15 inches on high gear. I cannot get power enough to climb an ordinary grade. At first the motor would develop hardly any power, but I altered the exhaust valve cam to allow the valve to remain open longer and the motor ran better. There is hardly any compression; I can turn the crank over easily and yet the motor does not leak. There is a clearance space 1 inch deep. I tried different carbureters and now have one that is all right. There is no trouble in running the car; it simply lacks power. I have tried every way to remedy the trouble, but it has always been without success. Can you suggest a way to help the matter?—F. JASZKOWIAK.

A double-cylinder 4 by 5-inch motor should develop 10 horsepower and is all the power that could be desired in a 1,300-pound car. As the motor seems to operate regularly and only lacks power, it seems that compression must be lost somewhere. Remove the pistons and see if the rings show an even wear all around. Fill the cylinder with water when the piston is at the head end. Remove the water and measure the volume. This volume should be 20 per cent of the piston displacement, or $12\frac{1}{2}$ cubic inches. If it shows more than that, rivet a piece of metal, of such volume as to make up the difference, either to the piston or the cylinder head, preferably the latter. Note the valve timing. The exhaust valve should open when the piston is within $\frac{5}{8}$ -inch from the end of the stroke and remain open until the exhaust stroke is fully completed. The valves should not be less than $1\frac{1}{2}$ inches in diameter.

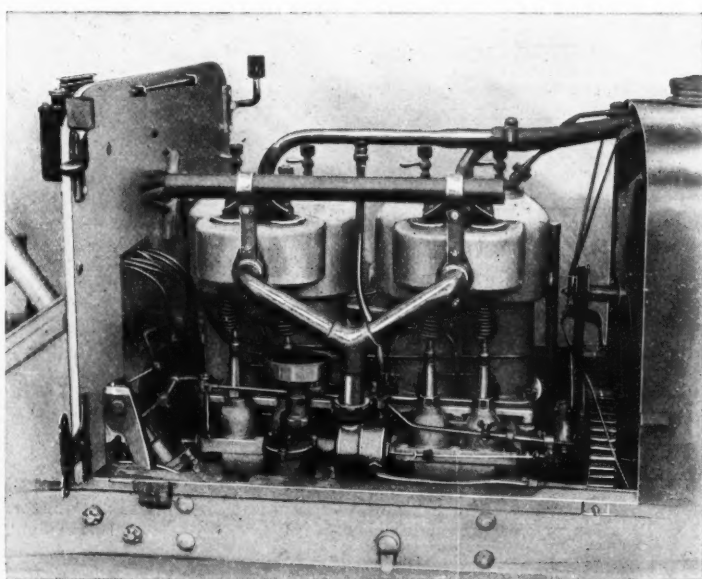


APPARATUS FOR TESTING STRENGTH OF VALVE SPRINGS

A PAIR OF NEW MOTOR CARS



THE CONTROLLING MECHANISM OF THE LOZIER



THE INLET SIDE OF THE LOZIER MOTOR

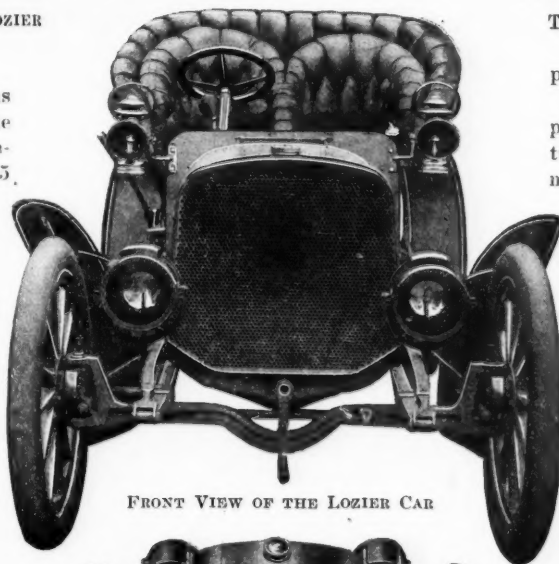
THE LOZIER CAR

The Lozier Motor Co., of New York, has branched out of the launch business into the automobile business with a modern four-cylinder car which is being introduced for 1905 trade. It is rated at 30 to 35 horsepower.

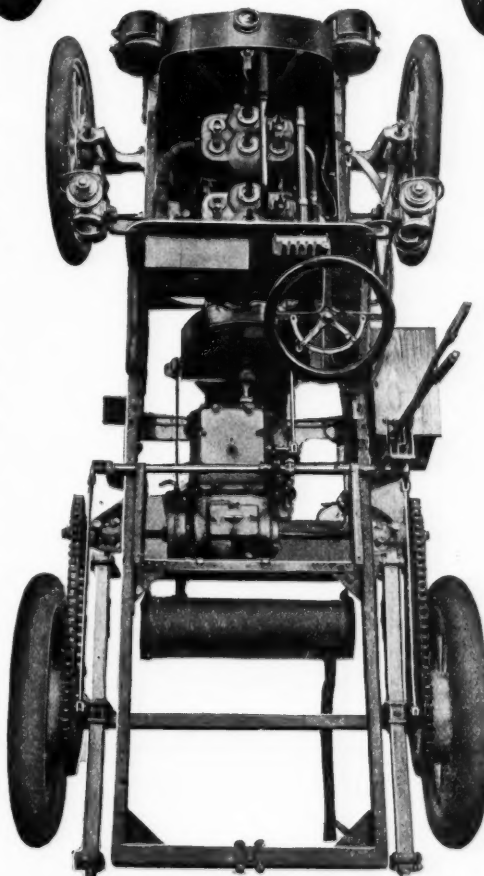
The wheel base is 115½ inches, to give space for a roomy side-entrance tonneau. The axles are of I-beam section, made of nickel steel forgings. The springs are 38 by 1¾ inches in front and 42½ by 2 inches in the rear. The wheels are 36 inches in diameter, of the wood artillery pattern, with ball bearings of ample proportion both front and rear. The tires are 4½-inch detachables. Ample clearance is said to be allowed above the ground for rough roads. The motor is of the vertical four-cycle style, having four cylinders cast in pairs and bolted to an aluminum crank case. The valves are all mechanically actuated, the inlet being on one side and the exhaust on the other. They are accessible by removing one nut and strap for each pair. Valves, springs and lifters are all interchangeable. The material of the valves is claimed to be a nickel-steel composition with low co-efficient of expansion to minimize distortion.

The cam shafts are direct-driven without intermediate gears by a steel pinion on the crank shaft, meshing with combination fiber and bronze gears on the cam shafts. The cams and valve lifters are enclosed in small chambers in communication with the main crank chamber, receiving splash lubrication therefrom. Removable aluminum covers afford entrance to these chambers. The crank shaft is a mild open-hearth steel forging, said to be of 30-point carbon. The crank pins are hardened and ground in a machine said to be built for this purpose.

Jump spark ignition is used in connection with a high-tension magneto, or with storage batteries and induction coil, as desired. Speed control is secured by spark lead and throttle levers located on the top of the steering wheel. The motor is fitted with carbureter of the style commonly known as automatic. A cellular radiator, fan and a gear-driven centrifugal



FRONT VIEW OF THE LOZIER CAR



PLAN VIEW OF THE LOZIER CHASSIS

pump comprise the water circulation system.

The fly wheel is enclosed in an aluminum pan which forms a connecting member between the motor and gear case, with an intermediate shaft fitted with universal joints between the clutch and gear case. The clutch is of the leather cone type, with self contained thrust, and is fitted with springs under the leather to allow gradual engagement. The clutch cone is removable for the renewal of leather without disturbing the motor gear case.

The sliding gear transmission furnishes three speeds forward, and a reverse. The highest speed is by a direct drive to the cross counter shaft, with the secondary shaft in the gear case idle. All speed changes are made with one lever that is locked against movement except when the clutch is released. All the gear shafts are said to be made of nickel-steel and run on ball bearings. The gears are hardened and have teeth of No. 6 pitch. The final drive is by two side chains to the rear wheels from the cross differential shaft, which also runs on ball bearings.

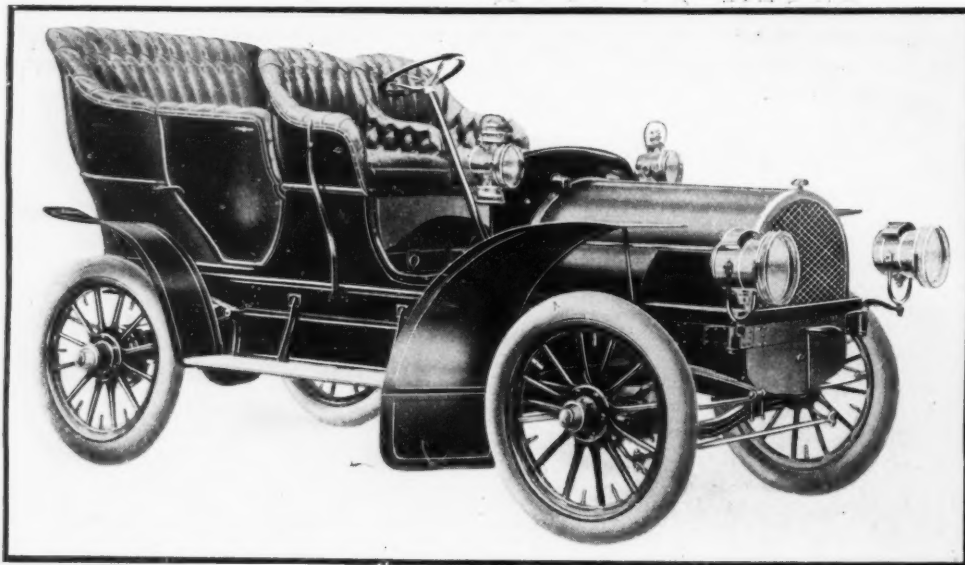
There are two brakes. On the differential shaft is a metal-to-metal brake applied by means of a pedal, and which has a renewable sheet brass shoe. The rear wheel brakes are of the expanding type, enclosed in dust proof cases. Application of the pedal brake disengages the clutch, being interconnected therewith. The emergency brake is not thus interconnected, permitting use of the motor, with low gear engaged, as an extra brake.

The cap is fitted with an aluminum body, which will be furnished in any of several conventional styles.

OUT OF THE ORDINARY

The Nordyke & Marmon Co., of Indianapolis, Ind., is introducing an air-cooled car that is unconventional in two ways—the arrangement of the motor cylinders and the disposition of the motor and transmission on a sub-frame.

The car is a modern side-entrance tonneau with a wheel base of 90 inches, standard tread and 32-inch wood artillery wheels, shod with 4-inch tires. The main frame is rectangular,



THE MARMON FOUR-CYLINDER AIR-COOLED SIDE-ENTRANCE TOURING CAR

of channel section pressed steel with channel cross braces in the corners. It is mounted on two full elliptic springs in the rear and on two full elliptics in front, the connection here being to give the main frame a three-point suspension. The front axle is of I section with jaw steering knuckles. Reach rods extend on each side from the center of the frame to the front and rear axles.

The motor and transmission gear are set on a long triangular sub-frame of pressed steel of heavier gauge than the main frame. This sub-frame is pivoted at its apex in the rear around a tube extending forward from the rear axle gear case, there being one bearing just ahead of the case and one at the extreme forward end of the tube, which point is just back of the transmission gear case, this forward bearing being in a double arm bracket between the side members of the sub-frame. These pivot bearings are of course concentric with the final drive propeller shaft. In front the sub-frame rests on the front full-elliptic spring. A central trunnion on the front cross member of the sub-frame gives the center front one point of suspension for the main frame, the direction of triangular suspension of the two frames being thus reversed.

This suspension of the frames and disposition of the motor and transmission gear makes possible a direct drive to the bevel gears in the rear axle case, with universal joints and telescopic shafts eliminated, the whole structure being a unit.

The motor is rated at 20 horsepower and is of four air-cooled cylinders arranged in pairs obliquely opposed, the crank shaft being longitudinal of the motor. A fan is used to assist the cooling. The valves are all mechanically operated, and both inlet and exhaust valves are in the top of the cylinder heads, being operated by tappet levers, which are, in turn, actuated by lift rods extending upward on the inner sides of the cylinders, all taking their movement from a single central cam shaft inside the crank case.

The ignition is by the usual jump spark system with four coils and current from dry cells. The carburetor is of the approved float-feed, self-regulating variety, and is placed in front of the motor to be readily accessible by lifting the bonnet.

The lubrication of the motor is by a mechanical system in which the base of the crank

case is an oil reservoir, in which there is a pump operated by the motor through gears. This lubricates all the main engine bearings, the crank bearings and the wrist pin bearings in the pistons. The cam shaft and its bearings are lubricated by the mist of oil caused by the motion of the crank and connecting rods. A relief valve is provided so that in the case of high speeds the pressure is not excessive, while a gauge connecting with the oiling system, is placed on the dash board. In addition to the pressure gauge, a sight gauge is placed upon the base of the crank case.

The exhaust muffler is placed between the motor and the transmission gear case.

The transmission is by a planetary set of all spur gears, contained in an aluminum case with removable cover. This case does not support any of the main bearings of the gear, being merely to hold the lubricating oil. The high speed drive is direct through a cone clutch.

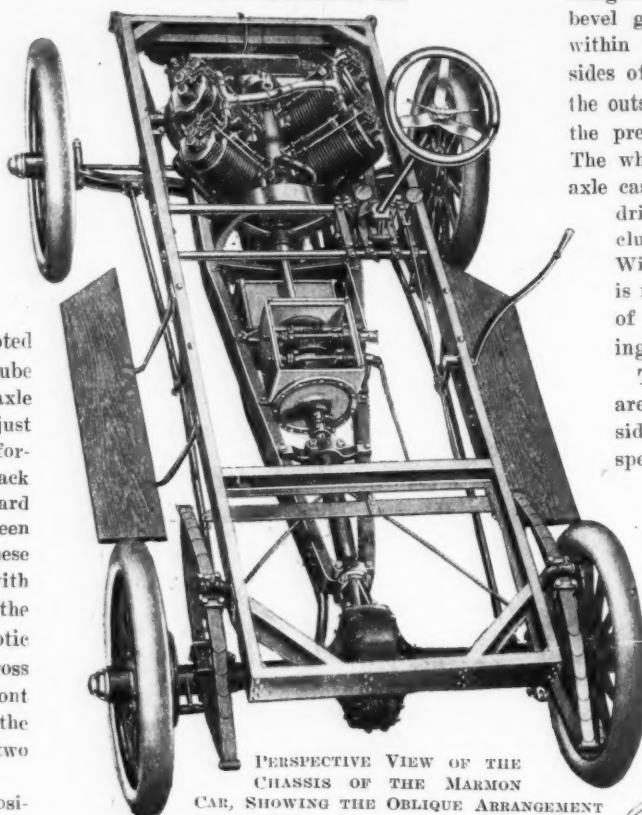
The differential is of the spur gear type, designed to give a rigid support to the driving bevel gear. The housing of the differential within the bevel gear case extends on both sides of the bevel gear to permit bearings on the outside of the housing, which bearings take the pressure and thrust of the driving gear. The wheel bearings are on the outside of the axle casing and inside of the wheel hubs, the drive to the wheels being through jaw clutches on the outside of the hubs. With this construction the driving axle is relieved of shearing strain, the weight of the car being taken on the axle casing.

The throttle and spark control levers are on top of the steering wheel. The side lever takes care of two forward speeds. One of the two pedals connects

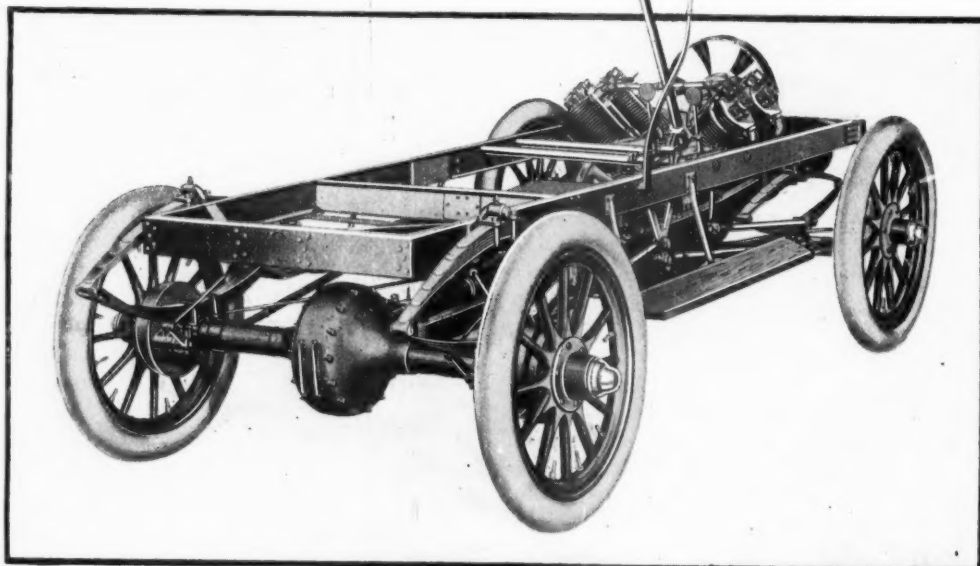
with the internal expanding brakes on the rear wheels. The other pedal operates the reverse.

The tonneau, each side door, the divided front seat and the curved dash, are each a solid aluminum casting. The bonnet and fenders are also of aluminum.

The company has operated earlier models extensively and in introducing this model feels confident of its practicality. Hence it will be pushed vigorously in a commercial way.



PERSPECTIVE VIEW OF THE CHASSIS OF THE MARMON CAR, SHOWING THE OBLIQUE ARRANGEMENT OF THE MOTOR CYLINDERS AND THE DISPOSITION OF THE MOTOR AND TRANSMISSION ON A THREE-POINT SUSPENSION SUB-FRAME



THE CHASSIS OF THE MARMON AIR-COOLED CAR

FROM THE FOUR WINDS



THE POPE-TOLEDO EXHIBIT AT THE PARIS SHOW

Another Millionaire at It—Harry Payne Whitney, of New York, is reported to have purchased a 100-horsepower Mercedes car while at the Paris salon. He intends to enter the racer for the Vanderbilt cup race.

Drew a Suit—Clarence Dodge, of Norwalk, O., has drawn a neat Holiday suit in the sum of \$10,000. The plaintiff, Fay Payne, a minor, claims that she was painfully injured by the careless manner in which the defendant operated his automobile on the streets of Sandusky recently.

Hazleton Progressive—The new speed ordinance of Hazleton, Pa., applies to both automobiles and trolley cars, neither of which may be run at a greater rate of speed than 8 miles an hour. For the motorists the penalty will be a fine of from \$10 to \$50 for violation of the ordinance, while the punishment for the trolley car motorman will be from \$25 to \$100.

Theft in St. Louis—The first automobile theft that has been reported to the St. Louis police occurred Friday evening last. H. M. Noel, going into the house of a friend for a moment at 6 o'clock, left the plug in the switch. When he returned no more than 5 minutes later the automobile was gone. It was a 1904 Olds, of which type there are but a few in St. Louis. The license number was 49; the motor is No. 21732.

John Was a Hero—John Wilkinson, engineer of the Franklin company, saved a lecture at Syracuse the other day from being a distinct failure. His automobile flying through the streets at 9 o'clock at night attracted the attention of every person around. It happened that Mr. Wilkinson attended at the University Club a lecture given by George F. Kunz, of New York, on the effect of ultra-violet rays on gems. After trying for half an hour to get his induction coil to work Kunz announced to the impatient audience that his coil would not work. Mr. Wilkinson proved equal to the occasion. He knew where he could borrow a coil about 2

miles distant. He jumped into his automobile and was back with the coil before the audience fairly realized that he had gone. The lecturer was enabled to manufacture his ultra-violet rays and the entertainment went on.

Motor Cycle Hour Record—The motor cycle hour record is held by Henry Cissac, of France, who covered 54 miles 1,058 yards on the Parc Les Princes track in Paris. A French motor cyclist recently said that on a straight level course more than 100 miles could be run in an hour.

Thomas Enters—Dr. Harold D. Thomas, of Chicago, Ill., one of the prospective American competitors in the Bennett cup race, is the first driver who informed the management of the Pike's peak hill-climbing contest, to be held in Colorado, that he intended to enter his new racing car for the event.

Only for Horses—Some farmers of Winsted and other localities in the western part of Connecticut will send a bill to the legislature asking that automobiles be prohibited from being used on the country roads of the state. "The roads are generally narrow," say the farmers, "and from the extreme liability of automobiles to frighten horses are unfit means of travel."

Machine for 50 Cents—A 14-year-old messenger boy won a \$2,000 automobile which was raffled by a society in Chicago which wanted to raise a nursery fund. The boy drew a ticket worth 62 cents and, having only 50 cents, a person unknown to the lad paid the difference. The pastor of the church to which the messenger boy belonged urged him to sell the machine and place the money in the bank, but the boy said he preferred to use the car.

Little Particular—The street cleaning commissioner of Philadelphia, Pa., has been given permission by the board of estimate to purchase two motor cars for his use. The interesting part in the matter is that the commissioner may buy the cars from other concerns

than the one which made the lowest bid. He claimed that the vehicles offered at \$1,800, and which are of American make, were not desirable, while the imported cars at \$2,500 are the kind he desired.

Buying Some Abroad—Some idea of the growing importance of the French automobile trade with the United States may be gained from recently compiled figures, which show that in 1902 there were 47 tons of automobiles valued at \$94,000, shipped from Havre to this country, increasing to 92 tons, valued at \$184,000, in 1903.

Paid for Carelessness—According to a cablegram one of the severest sentences imposed on an automobilist was given in Paris a few days ago. The son of the former president of Argentine Republic, South America, who ran over a woman last June, was sentenced to 30 days in jail, to pay \$20,000 damages and a fine of \$100. The woman died as a consequence of the accident.

Captain Deasy's Records—During his 4,000-mile endurance drive in a 16-20-horsepower Martini car, Captain Deasy averaged 181 miles daily during the 22 days of the trial. All told 294 gallons of gasoline were consumed and 4½ gallons of water. Over 3,878 miles were covered on the same front tire, while 4,002 miles were covered on the other. On the first hind wheel 706 miles were covered before the tire had to be removed, while 2,170 were covered on the second before replacement. Captain Deasy stated that 6,000 miles had been covered with the same car before the official club trial was started.

Exports Declined—A decline of \$1,344 in the value of the exports of automobiles from this country during November last, as compared with the same month last year, is reported in the latest official compilations, the exports for the 2 months being \$106,117 and \$107,521, respectively. This decline is offset by several thousand dollars in the returns for the 11 months ending November, 1904, when the total exports were valued at \$1,682,994, as against \$1,419,481 for the same period of 1903, and \$1,026,083 for the 11 months of 1902. Three times this year the monthly exports of automobiles have declined in value, but even with this loss the total exports for the year will be the greatest in the history of the trade.

Say Ruling Is Void—At a recent meeting of the executive committee of the National Association of Automobile Manufacturers its counsel, Charles Thaddeus Terry, was directed to prepare an opinion concerning the validity of a decision by the County court of Grant County, W. Va., whereby people were forbidden to operate automobiles on any highways in the county and providing a penalty of \$100 for violators of the order. The attorney of the association prepared an interesting opinion, in which the chief arguments are that the order is an illegal usurpation of the powers of the legislature by the court; that it is also a violation of the United States constitution and that of the state of West Virginia, because it deprives citizens of both liberty and property without due process of law. Furthermore, the order is in excess of the police powers of the state and it discriminates between the users of the highways and deprives automobilists of the equal protection of the law and consequently is void.

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AMERICAN MOTOR LEAGUE



OFFICIAL BULLETIN

THIS LEAGUE

Is Now Collecting Route Information

covering all automobile routes in the important states and will publish road books for motor car users as fast as complete information is received. The A. M. L. is the only organization engaged in this work, and it invites the co-operation of all persons interested. For full information and membership blanks address American Motor League, Vanderbilt Building, New York City.

REDUCED RAILROAD FARES

Manager Young, of Madison Square Garden, has published a terse and timely announcement. It is this :

“No reduced rate has been granted by the passenger associations on account of the show and none will be.”

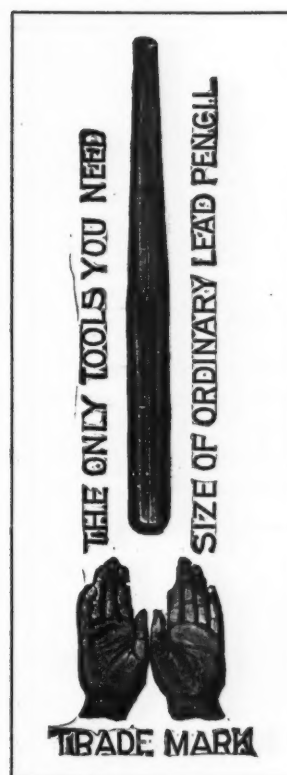
There will be no excuse this year for the roof-raising tumult that was started at the last New York Show by visiting automobilists who “did not understand.” Reduced rates of fare

HAVE BEEN GRANTED

to members of the American Motor League who go to New York (or to Chicago) to attend the Annual League Meetings during the show weeks, but the concession thus granted does not extend to non-members. To prevent the abuse of this privilege the railroad association has prescribed that the League shall file with the R. R. Commissioner a list of its members before the opening of the show, and the League has accepted this condition. The time is now short. Persons intending to join the League in time to attend these meetings should do so at once by sending full name and address (plainly written) with \$2.00 to cover one year's dues, to American Motor League, Vanderbilt Building, New York, N. Y. The League has taken up a great work in behalf of American Automobiling and its printed matter (sent to any reader on request) sets forth many reasons why every motor car user should belong

TO THE AMERICAN MOTOR LEAGUE

The Perfected Dunlop Detachable Tire



Other Tires wear out, blow out, become rim-cut, creep, pinch the tubes, blow off the rims when inflated, and have endless troubles, but not the "Perfected Dunlop." :: :: :: :: ::

The Perfected Dunlop Tire runs until it is worn out

The Hartford Rubber Works Co.

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BUFFALO
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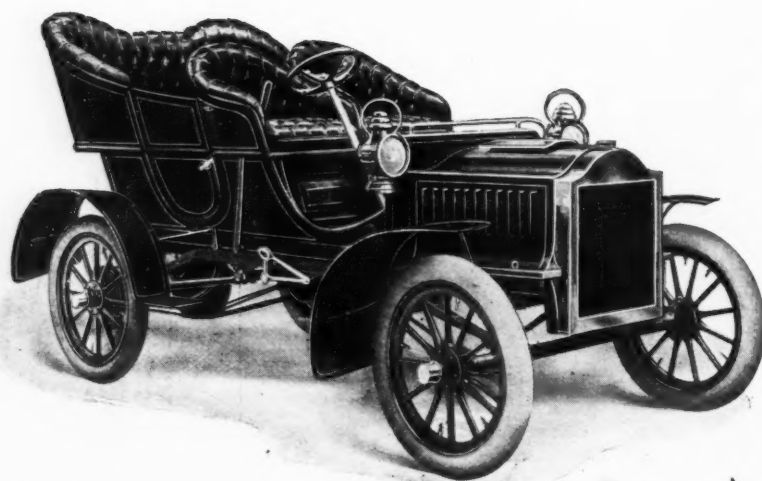
MINNEAPOLIS
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A T NEW

A WONDERFUL



A 20 H. P.

Touring Car

Price \$1400

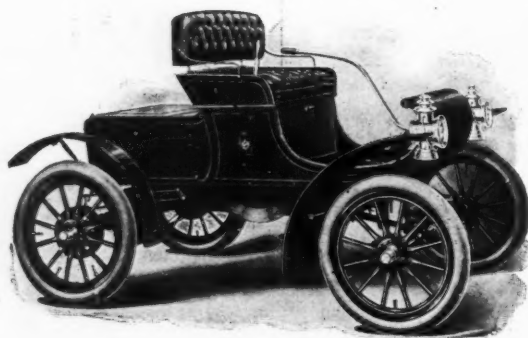
is the new member of the Oldsmobile family.

20 H. P.

2 CYLINDER MOTOR

SIDE ENTRANCE

This car has been built in response to a distinct demand and has been eagerly expected by dealers and the public alike. It combines comfort with speed, hill climbing ability, and plenty of surplus power. The motor is double opposed, $5\frac{1}{4} \times 6$ in., wheel base, 90 inches. Construction is simple and durable. High grade material used throughout. Noise of exhaust completely eliminated.



The Standard Runabout

Price \$650

Still continues to be the most popular car ever produced. Each year has found it better and stronger and more reliable than ever. This year a new carbureter gives increased power with a less consumption of fuel. It climbed Eagle Rock in record time. M. Fournier just completed a tour of all Europe with this car, winning a wager of \$10,000.

CALL ON US AT MADISON SQUARE

OLDS MOBILE

1300 JEFFERSON AVENUE

Member of the Association of Licensed Automobile Manufacturers.

THE EXHIBIT

NEW YORK SHOW

LINE OF CARS

Touring Runabout

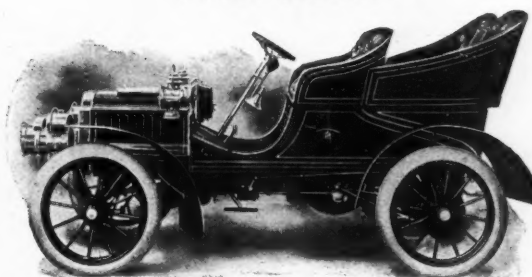
Price \$750.⁰⁰



This car is especially adapted for the doctor's and business man's use. It combines style, speed and convenience. Its simple construction and durability eliminate petty annoyances.

Light Tonneau Car

Price \$950.⁰⁰



Increased power—style and comfort all combine to make this the most popular car of its class. Is equipped with Oldsmobile 10 H. P. motor. Has tilting steering post, honeycomb radiator and parts easily accessible.

Light Delivery Car

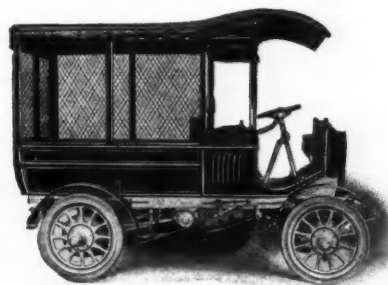
Price \$1,000.⁰⁰



Equipped with 10 H. P. motor and all the improved fixtures. There are a large number of these cars in active service and users testify to their convenience and economy. We will gladly furnish you with evidence showing the relative expense as compared with the old method of delivery.

Heavy Delivery Car

Price \$2,000.⁰⁰

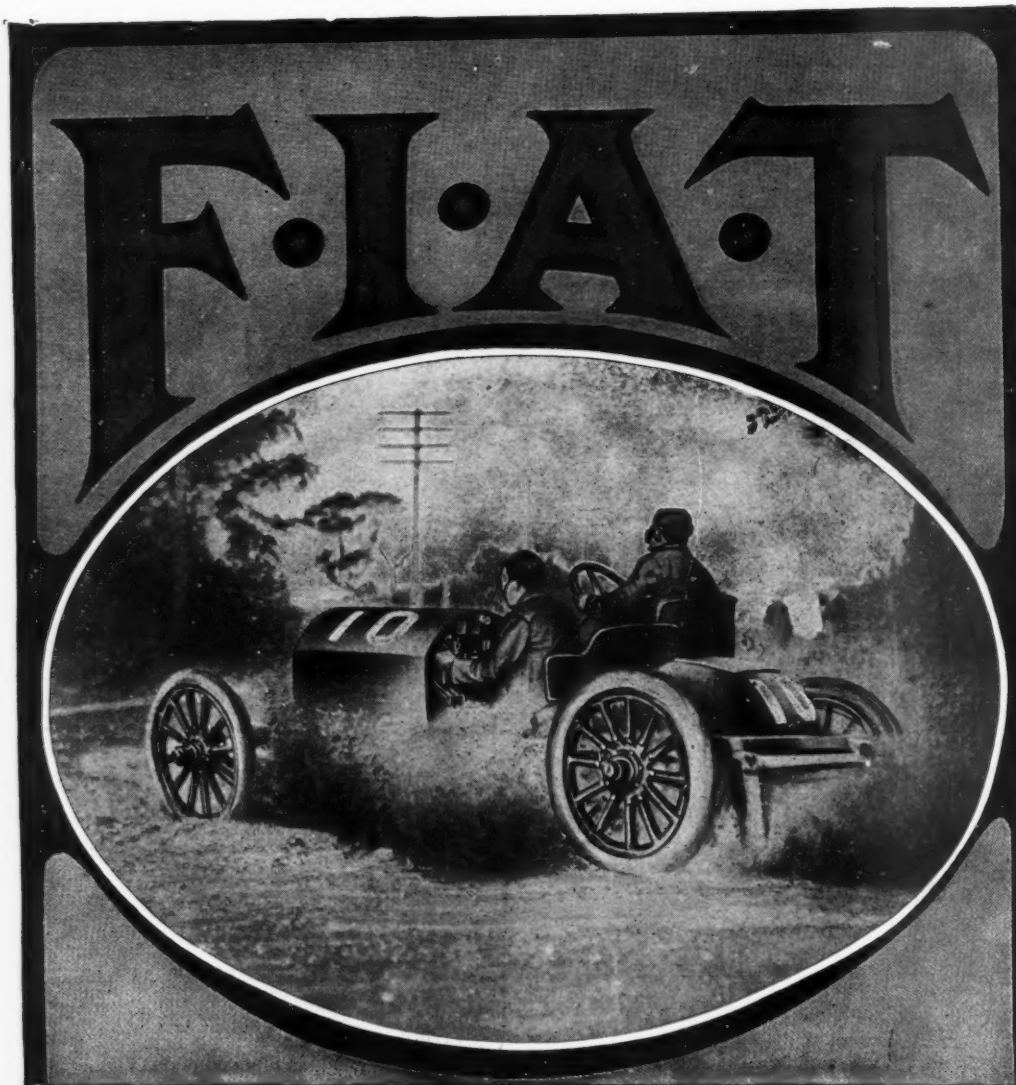


16 H. P. 2 cylinder motor—every part built to secure strength and endurance. This car meets commercial requirements to a remarkable degree. It has a very large carrying capacity. Ready for January delivery. Full details sent on application.

RE ARDEN, OR WRITE. ADDRESS

FOR WORKS

DETROIT, U. S. A.



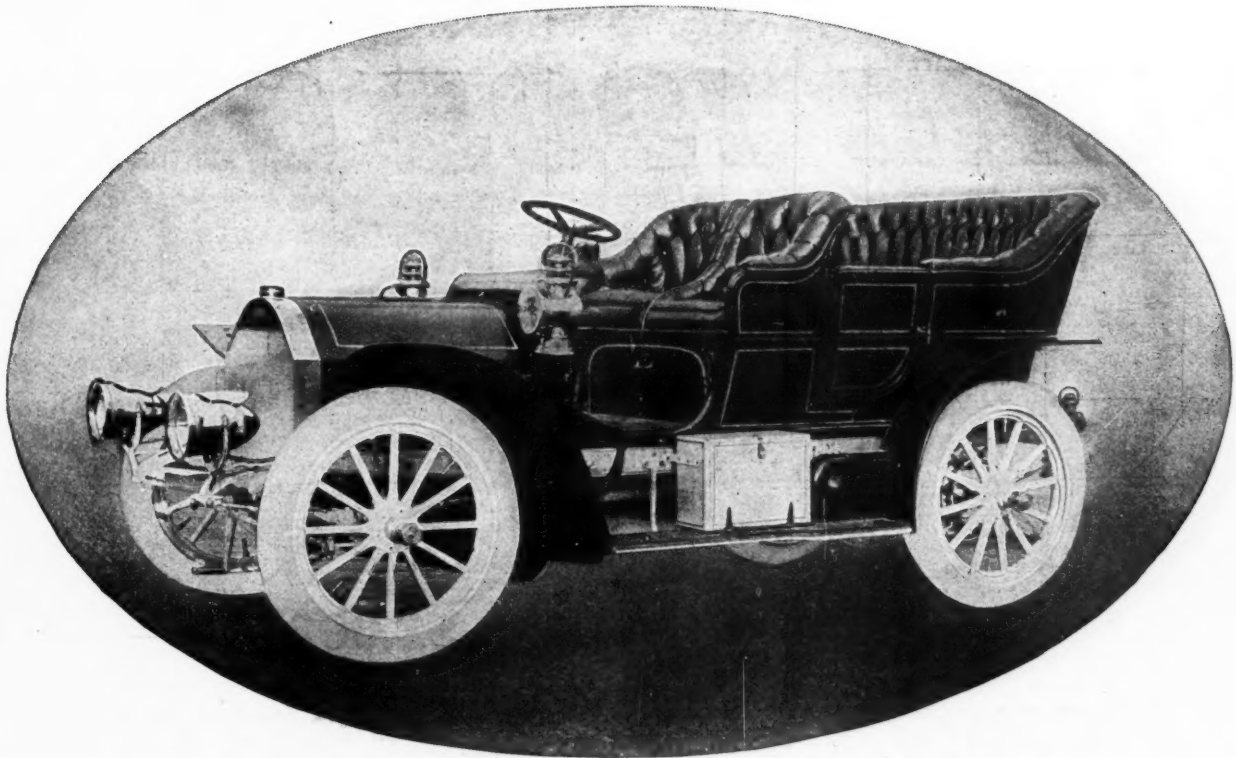
The 90 H. P. "FIAT" Car owned by Alfred Gwynne Vanderbilt, Esq., holds the World's Record for road racing, having covered 240 miles at the rate of 72 1-5 miles an hour, without a stop, in the Brescia Race.

**Average speed of Gordon Bennett winner, 57 miles an hour
Average speed of Vanderbilt Cup Race winner, 52 miles an hour**

HOLLANDER & TANGEMAN,

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Sole American Agents. Licensed Importers under Selden Patent.



"EASILY THE BEST BUILT CAR IN AMERICA"

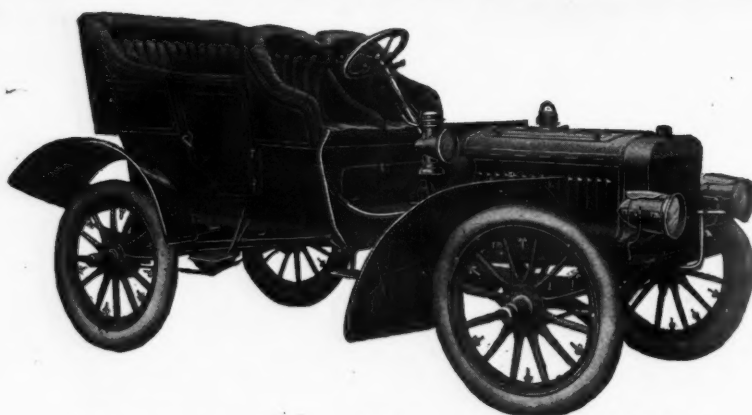
Locomobile

OUR complete Four-Cylinder Line; record for reliability; and facilities for early spring delivery will interest every agent. See our large exhibit at the Automobile Show, Madison Square Garden, New York, January 14th-21st.

15-20 H. P. \$2,800	20-25 H. P. \$3,700	30-35 H. P. \$5,000	40-45 H. P. \$7,500
20 H. P. motor with mechanically operated valves. Make and break ignition, magneto. Three-speed transmission. Pressed steel frame. Wheel base, 92 inches. Weight, 1,800 lbs.	25-H. P. motor, with automatic inlet valves and jump spark ignition. Three-speed transmission. Channel steel frame. Wheel base, 96 inches. Weight, 2,300 lbs.	35-H. P. motor with mechanically operated valves. Make and break ignition, magneto. Three-speed transmission. Pressed steel frame. Wheel base, 106 inches. Weight, 2,500 lbs.	45-H. P. motor with mechanically operated valves. Make and break ignition, magneto. Four-speed transmission. Pressed steel frame. Wheel base, 110 inches. Weight, 2,800 lbs.
<i>Side-entrance tonneau.</i>	<i>Side-entrance tonneau.</i>	<i>Side-entrance tonneau.</i>	<i>Side-entrance tonneau.</i>

The *Locomobile* COMPANY OF AMERICA, Bridgeport, Conn.
 NEW YORK—Broadway, corner of 76th Street
 PHILADELPHIA—No. 249 N. Broad Street
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 CHICAGO—No. 1354 Michigan Avenue
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Member Association Licensed Automobile Manufacturers

THE FORD 1905 CARS



Model B. Price \$2,000

Henry Ford's Latest and Greatest Success

Our 1905 Touring Car weighs only 1710 pounds. The 4-cylinder vertical motor develops over 20 horse power, so that **THIS CAR HAS MORE POWER FOR ITS WEIGHT THAN ANY OTHER CAR IN THE WORLD.** This means considerably less wear on the tires and consequently a great saving to the owner. It also means there is ample reserve power for steep grades and sandy roads.

Wheel base 92 inches, direct drive with universal coupling, cylinders 4x5, water cooled, automatic oiling device with force feed, large side entrance tonneau seating three people.



Model C. Price \$950.

The improvements on the Ford 2-cylinder car place this model ahead of any car on the market at anywhere near the price. Both in style and mechanical construction this car is a year in advance of its nearest competitor. Double opposed motor of 10 actual horse power, planetary transmission, chain drive, and increased gasoline capacity. The most stylish, low priced car on the market.

**Some Good Territory Yet Open for Live Agents.
Write us today for Full Information.**

FORD MOTOR CO., = Detroit, Mich.

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THREAD FABRIC

G & J TIRES

Maximum of Durability

Maximum of Speed

Maximum of Comfort

Minimum of Trouble

The thread fabric construction removes all internal friction from the fabric, so that the tires do not heat up under the longest drives at the highest speed. That is why G & J thread fabric tires are the most serviceable automobile tires in the world. :: :: :: :: :: :: ::

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WIN



Twin Springs are but one of many exclusive features to be enjoyed

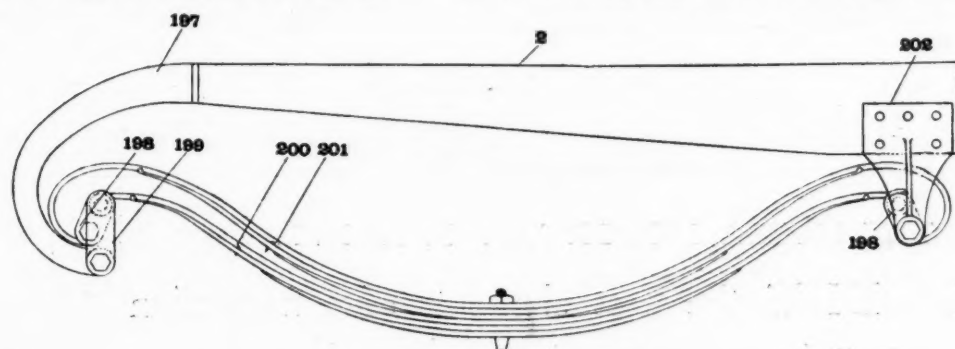
FOUR MODELS--All with four-cylinder vertical motors. 16-20

Polar Compound. Keeps water fluid at 10 degrees below zero. One filling lasts all winter. Twenty-five cents a gallon, f. o. b. Cleveland. Shipping Cans extra—5 gal. 50c, 10 gal. 75c.

THE WINTON MO
MEMBER ASSOCIATION LICENS
CLEVELAND,

WINTON

TWIN SPRINGS—AN EXCLUSIVE WINTON FEATURE



Automobile springs generally have one of two radical faults:

First.—Some springs are *so stiff* that they do not absorb the shocks of travel, but transmit them to the motor, greatly to its damage, and jar the passengers in a most uncomfortable manner.

Second.—Other Springs are *so elastic* that the car bounds up and down, like a ship at sea, distressing the motor and the passengers alike.

The *Ideal spring*, consequently, is one that combines *resistance* (stiffness) with *resilience* (elasticity), in such proportion that the motor sustains no shocks and the passengers travel in complete comfort.

WINTON *Twin Springs* alone possess this combination of merit.

Two four-leaf springs (200 and 201) are united in the center and shackled at either end (198). They support the frame (2) by means of shackle (199), which is attached to spring horn, and spring plate (202).

Because of the *freedom of action* allowed by the shackles (198), the result, when car is used, is a *light spring* for light loads and good roads, and a *heavy spring* for heavy loads and rough roads. The efficiency of these *Twin Springs* has been absolutely proved, not only by mechanical tests, but also by use on WINTON cars for *more than a year*. Individual owners who have used them could not be persuaded to use any other kind. The comfort these *Twin Springs* provide adds a new delight to motoring.

Used by Winton owners in 1905. Booklet No. 2 tells about the others.

20 h. p., (Shown above) \$1800. 24-30 h. p., \$2500. 40-50 h. p., \$3500 and \$4500.

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CENSED AUTOMOBILE MANUFACTURERS
ND, OHIO, U. S. A.



THE LOZIER MOTOR CAR—30-35 H. P.

EMBODIES the best elements of construction known to modern automobile engineering—absolutely high grade. The four-cycle, four-cylinder vertical type motor, being a “LOZIER,” carries with it every assurance of perfection—absolutely automatic carbureter—115 1-2 inch wheel base—36 inch wheels—4 1-2 inch tires—double chain drive—double side entrance tonneau—large seating capacity. CATALOGUE NOW IN PREPARATION. Send for a copy and get it right off the press.

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LOZIER

The Man



R. E. Olds

You know him, the foremost designer of gasoline motor cars in the United States. He has built motors for twenty years and built them right. Any car that he makes is a goer, a sure goer, with the greatest possible use of every bit of power the gasoline can give.

He is not satisfied with simply an "idea." Every detail is worked out to the fullest possible perfection. He doesn't spend your money in learning how. He knows what he is going to do before he does it.

Above all, he knows what kind of a car to build for American roads; and he knows what the American people want. His first car was a success. His latest car, the Reo, is a wonder.

The Car

Everybody who has seen the Reo says it is a beauty—stylish and luxurious. The picture (from an amateur photograph) gives a fair idea of how it looks from the side, but you must look it all over and all through to realize the perfection of detail which makes its wonderful effectiveness. You should see : : : : :

Its **powerful engine**, simple and compact. Giving 16-horsepower for the 1450 pounds weight of the entire car—the greatest power for its weight of any motor car made and with the least possible loss.

It is **freeze-proof and jar-proof**; radiator in removable sections for making repairs without laying up the car.

Its **convenient gasoline and water tanks and batteries** under the hood.

Its **entire self-enclosed mechanism**.

Its **one-piece cylinders** without jackets.

Its **valve mechanism** at the top of the motor, with every valve mechanically operated.

Its **original and effective carbureter**, insuring a perfect mixture under all conditions.

Its **sensitive spark and throttle control**.

Direct transmission with ample clutch surface.

Practical steering gear and brakes.

Full elliptical springs in rear.

The **body, seats, guards, steps**, every detail of design, construction and finish, are a splendid example of convenient and luxurious carriage-making.

The Reo Touring Car is the car that people want at the price they would like to pay.

It is handsome, roomy, powerful, simple and easy to control. No amount of money could make the working part of the car better in any essential detail.

\$1,250 f. o. b. factory

The Reo Runabout

is a single cylinder 7½ H. P. car and weighs 850 pounds. The same attention has been paid to every detail that has made the Reo Touring Car a success.

\$650 f. o. b. factory

REO Motor Car Co.

R. E. Olds, President

R. M. Owen, Sales Manager

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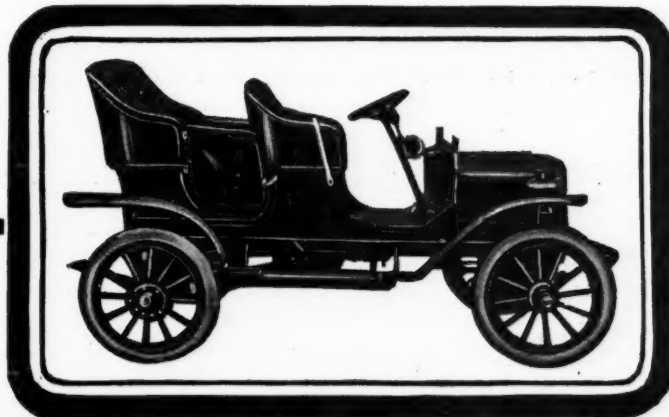
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Michigan

Sales Office:

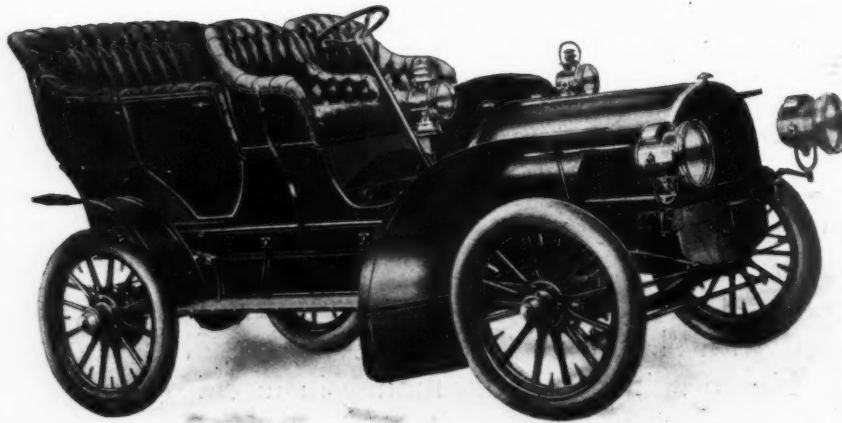
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New York



THE MARMON

A MECHANICAL MASTERPIECE



The Marmon--1905 Model--\$2,500

The Extreme Luxury of Motion

ONE ride in the Marmon Car makes a ready purchaser of any man who has determined to buy a high grade car. Conceive a combination of the gentle swing of a hammock with the rush of a fast train and you have some notion of the sensation given by a ride in the Marmon. Double Three-Point Suspension, an engine built on correct principles, and a driving mechanism that does its work smoothly and well, tell the story.

DOUBLE THREE-POINT SUSPENSION, long recognized and vainly sought by experts and designers as the ideal, is embodied in the only successful construction yet devised, in the Marmon Car. The body is on one frame, and engine and transmission on another, independent of each other, and both hung on three-point

suspension. No binding strains in transmission, no engine vibration in body and no jolts from rough roads.

MOTOR AND TRANSMISSION. The motor is a four-cylinder engine, thoroughly and perfectly air-cooled. Tested under the most severe conditions, it has proven its great value. Direct drive is had by means of a rigid shaft from engine to bevel gear in a unique rear axle, within which and bearing no weight moves the driving shaft.

THE BODY is roomy and luxurious, and, since it has no engine vibration and almost none from rough roads, it rides like a parlor car. Seats and dash are of single-piece aluminum castings with high and durable finish. Double side entrance tonneau, and ninety-inch wheel base.

CARDAN JOINTS ARE ELIMINATED, and transmission is never out of alignment. Absence of vibration and undue friction allows the whole mechanism to do its full duty without strain or interference; hence 20 H. P. in the Marmon is equivalent to 35 H. P. in many automobiles.

AUTOMATIC FORCE OILING SYSTEM, providing copious lubrication and insuring against the slightest oil trouble. All gears run in oil and the whole mechanism, while readily accessible, is dust proof and oil tight.

THE CONTROL is simple, quick and sure.



ESTABLISHED 1851.

Home of the Marmon Car

THE MARMON is made throughout of the very best materials with the most minute and precise workmanship; is built, tested, and guaranteed in every part by a company that for fifty years has known no superior in the production of high grade machinery.

It is an interesting proposition for agents with a high-class trade.

NORDYKE & MARMON COMPANY

Factory and Executive Offices,

INDIANAPOLIS, INDIANA

APPERSON



FORTY HORSE POWER

The Fastest Road Cars in the World
OF ANYTHING LIKE EQUAL POWER

Hand Made Cars for a Few Good Customers

Special Cars for those who want the Best

Eleven Years Building Automobiles

Three Years Building Four-Cylinder Cars

The Oldest Makers in America

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Victoria Tops

Collapsible Cape Tops

Full Leather Tops

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NOW READY

Apperson Bros. Automobile Co., Kokomo, Ind.

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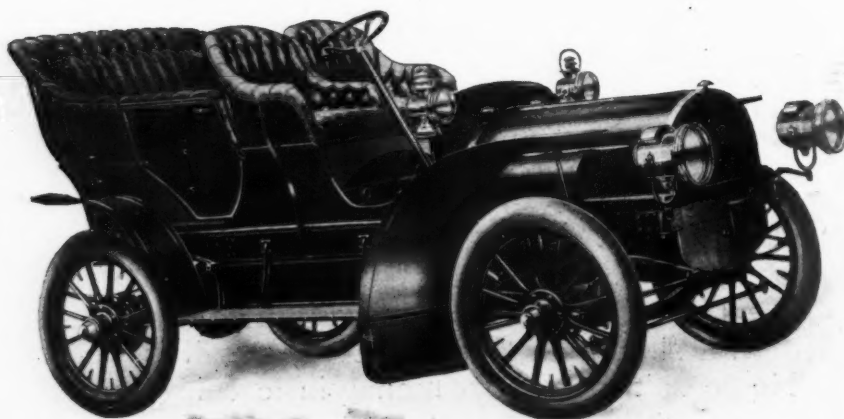
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THE MARMON

A MECHANICAL MASTERPIECE



The Marmon--1905 Model--\$2,500

The Extreme Luxury of Motion

ONE ride in the Marmon Car makes a ready purchaser of any man who has determined to buy a high grade car. Conceive a combination of the gentle swing of a hammock with the rush of a fast train and you have some notion of the sensation given by a ride in the Marmon. Double Three-Point Suspension, an engine built on correct principles, and a driving mechanism that does its work smoothly and well, tell the story.

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MOTOR AND TRANSMISSION. The motor is a four-cylinder engine, thoroughly and perfectly air-cooled. Tested under the most severe conditions, it has proven its great value. Direct drive is had by means of a rigid shaft from engine to bevel gear in a unique rear axle, within which and bearing no weight moves the driving shaft.

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ESTABLISHED 1851.

Home of the Marmon Car

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It is an interesting proposition for agents with a high-class trade.

NORDYKE & MARMON COMPANY
 Factory and Executive Offices, INDIANAPOLIS, INDIANA

APPERSON



FORTY HORSE POWER

The Fastest Road Cars in the World
OF ANYTHING LIKE EQUAL POWER

Hand Made Cars for a Few Good Customers

Special Cars for those who want the Best

Eleven Years Building Automobiles

Three Years Building Four-Cylinder Cars

The Oldest Makers in America

The Best Cars in the World

24 30 40 50
HORSE POWER

Side Door Bodies

Limousine Bodies

Victoria Tops

Collapsible Cape Tops

Full Leather Tops

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NOW READY

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GOODRICH TIRES FIT ALL ROADS

The Goodrich Clincher Automobile Tire is an American Tire built for American Roads and affords the opportunity to travel untrammelled and on an itinerary of your own choosing. It is a matter of record that the longest and hardest trips have been successfully made on Goodrich Tires.

Winners of the **GRAND PRIZE** at the St. Louis Fair
The Highest Honor Ever Awarded Automobile Tires

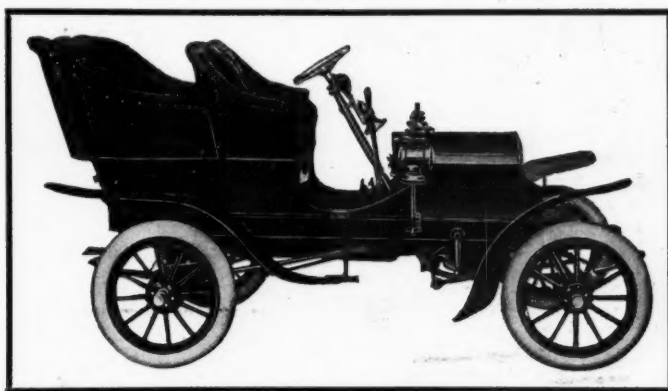
THE B. F. GOODRICH COMPANY

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BOSTON, 157 Summer St.
PHILADELPHIA, 909 Arch St.

BUFFALO, 9 W. Huron St.
DETROIT, 80 E. Congress St.
DENVER, 1444 Curtis St.
CLEVELAND, 420 Superior St.
LONDON, E. C., 7 Snow Hill.

Franklin Ability



Horsepower does not tell the ability of the car; neither does horsepower to weight; neither does anything that you can put into type.

The ability of a car is what it can do regularly, and under exceptional and trying conditions.

Franklin ability is a thing apart by itself. It begins with the right proportion between weight and horsepower. This proportion is carried out by engineering that is so simple and economical that the very best possible results are obtained from the horsepower.

The Franklin four-cylinder air-cooled motor is the beginning of this efficiency; but it is not all. The rightness of the Franklin engineering has everything to do with the Franklin success. We did not, by mere accident, hit upon the four-cylinder, when every other manufacturer in this country was using one or two. We knew what we were doing then. We know now.

The Franklin 12 horse-power Light Tonneau has the ability of the average 20 horse-power car, costs less, and is less expensive to maintain.

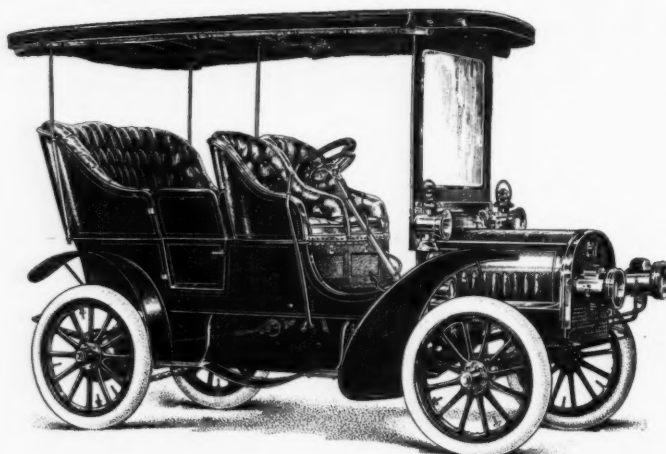
Send for catalogue.

H. H. Franklin Mfg. Co.

300 Geddes Street :: Syracuse, N. Y.

Member Association Licensed Automobile Manufacturers.

Rambler



Surrey Type One, With Top 18 H. P. \$1500

Complete With Lamps, Tools, Etc.

Immediate delivery

POSTAL TELEGRAPH-CABLE COMPANY IN CONNECTION WITH		THE COMMERCIAL CABLE COMPANY.	
18.	CLARENCE H. NACKAY, President. L. O. STEVENS, Sec'y.	CLARENCE H. NACKAY, President. ALBERT BECK, Sec'y.	GEO. G. WARD, V. P. & M.
TELEGRAM			
The Postal Telegraph-Cable Company transmits and delivers this message subject to the terms and conditions printed on the back of this blank.			
Number	Sent By	Rec'd By	Received at
14ch 20 m	18		4:30 P
Dated	Los Angeles Calif nov 18		
To	T B Jeffery & Co Kenosha		
ship immediately car of three surveys number one and wellers machine customers fighting for deliveries of surveys answer			
W K Cowan			

The season in Los Angeles, San Francisco, and other points on the Pacific Coast had advanced two months when this telegram was sent, and constant use had developed enthusiastic admiration of the vehicle. What has happened, will happen again—and in your city.

THOS. B. JEFFERY & CO., Main Office and Factory, Kenosha, Wisconsin

BRANCHES

BOSTON, 145 Columbus Avenue

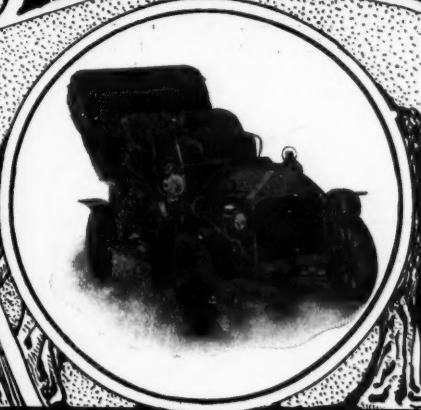
PHILADELPHIA, 242 North Broad Street

NEW YORK AGENCY, 134 West 38th Street

CHICAGO, 302-304 Wabash Avenue

Representatives in all leading cities

HAYNES



1905 MODEL

Style and ...Quality...

Though style is worth considering, a car is not a good car unless it has quality—quality must be uppermost.

In the **HAYNES** quality has first thought—then style—though both are characteristic.

Everything that can make this car look better, wear better and run better is embodied in its manufacture—that's why the **HAYNES** is so good.

Prices

\$1,350.

15 h. p., two cylinder (opposed) two passenger car, with folding seat in front. Three speeds forward and one reverse.

\$1,500.

15 h. p., two cylinder (opposed) convertible four passenger (surrey type). Shaft drive, three speeds forward and one reverse.

\$3,000.

30 h. p., four cylinder (vertical in front), silent roller gear, shaft drive (direct on high gear), five passenger, double side entrance tonneau with extra storage space.

Handsome descriptive catalog upon application. Interesting features attractively displayed—write for it.

The Haynes-Apperson Co.

Kokomo, Indiana

DEPOTS:

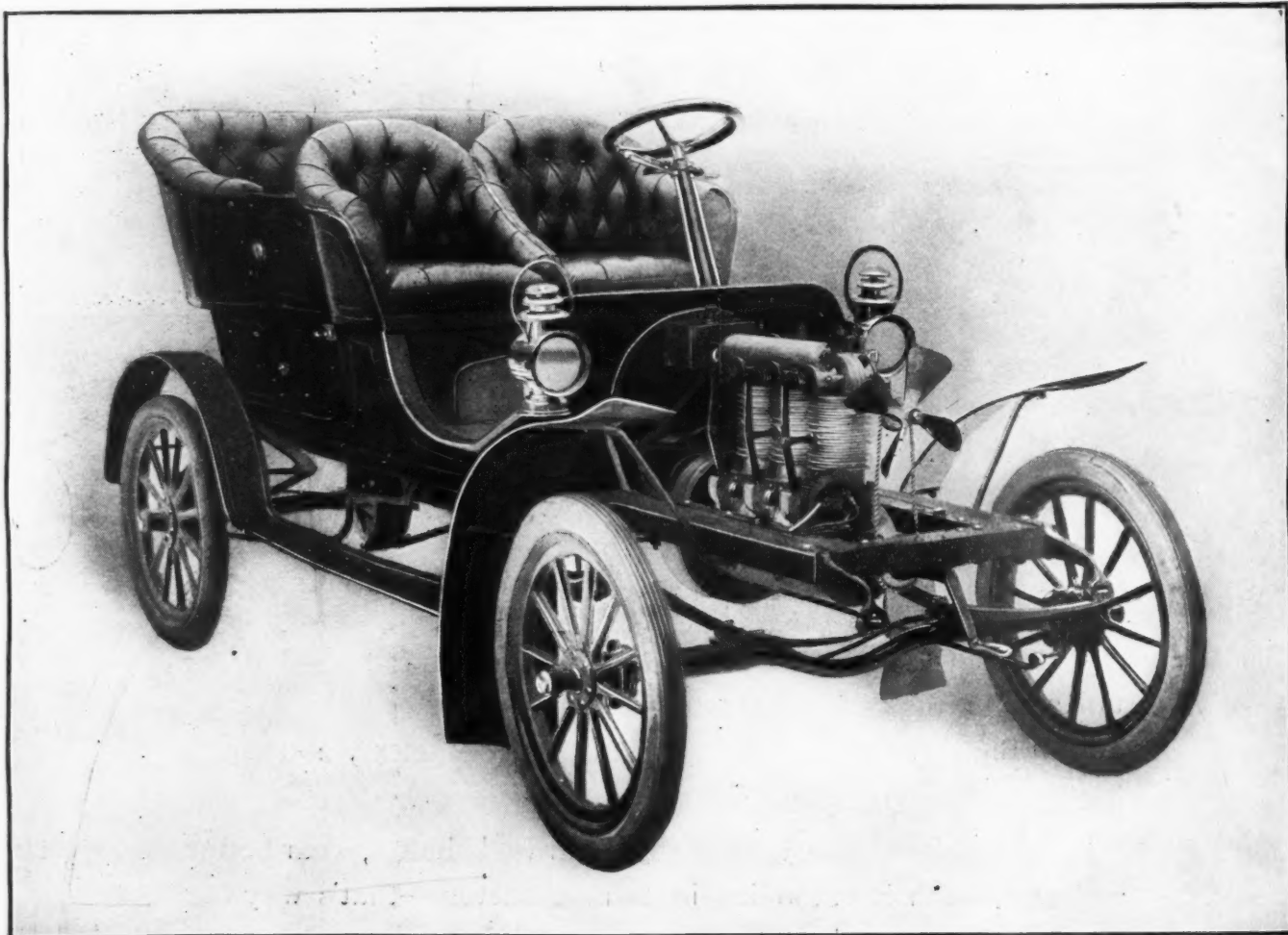
1715 Broadway, New York.
1420 Michigan Avenue, Chicago.

Member A. L. A. M.

CAMERON

**BUILT FOR SERVICE
KING OF ALL WEATHERS**

**IT SERVES YOU
THE CAR OF ECONOMY**



Model H— 8-10 H. P. Runabout	-	\$ 650
Model I— 8-10 H. P. Light Tonneau		750
Model J—12-15 H. P. Special Surrey		1050
Model K—12-15 H. P. Runabout	-	950
Model L—12-15 H. P. S. Entrance Tonneau		1050

**HONEST CARS
HONEST PRICES**

**Excessive Horsepower
Efficient Very Speedy
Great Hill-Climber**

Piece for Piece, Dollar for Dollar, the CAMERON CAR is unquestionably the best proposition of the year. All models are AIR-COOLED, SHAFT DRIVE, SLIDING GEAR TRANSMISSION, DIRECT DRIVE ON HIGH SPEED, NO GEARS IN MESH.

DEALERS WRITE FOR AGENCY PROPOSITION

NEW ENGLAND BRANCH, 75 TREMONT ST., BOSTON, MASS.

M. H. WHELOCK, Manager

THE JAMES BROWN MACHINE CO.

**ESTABLISHED
1829**

Pawtucket, R. I.

J. HAROLD JOHNSON, Sales Manager

1904		Profit & Loss a/c		1904	
Dec. 31	To replace- ments and incidental expenses in repair department in handling F&E mfg Co's trucks 173	123263		Dec. 31	By net profit and Continental Trust 730
	To Balance	536787			660050
		660050			660050

Live dealers throughout the country are requested to apply for selling agency of the justly popular CONTINENTAL TIRES. Apply to the nearest distributing agent or for open territory to Department M. A.



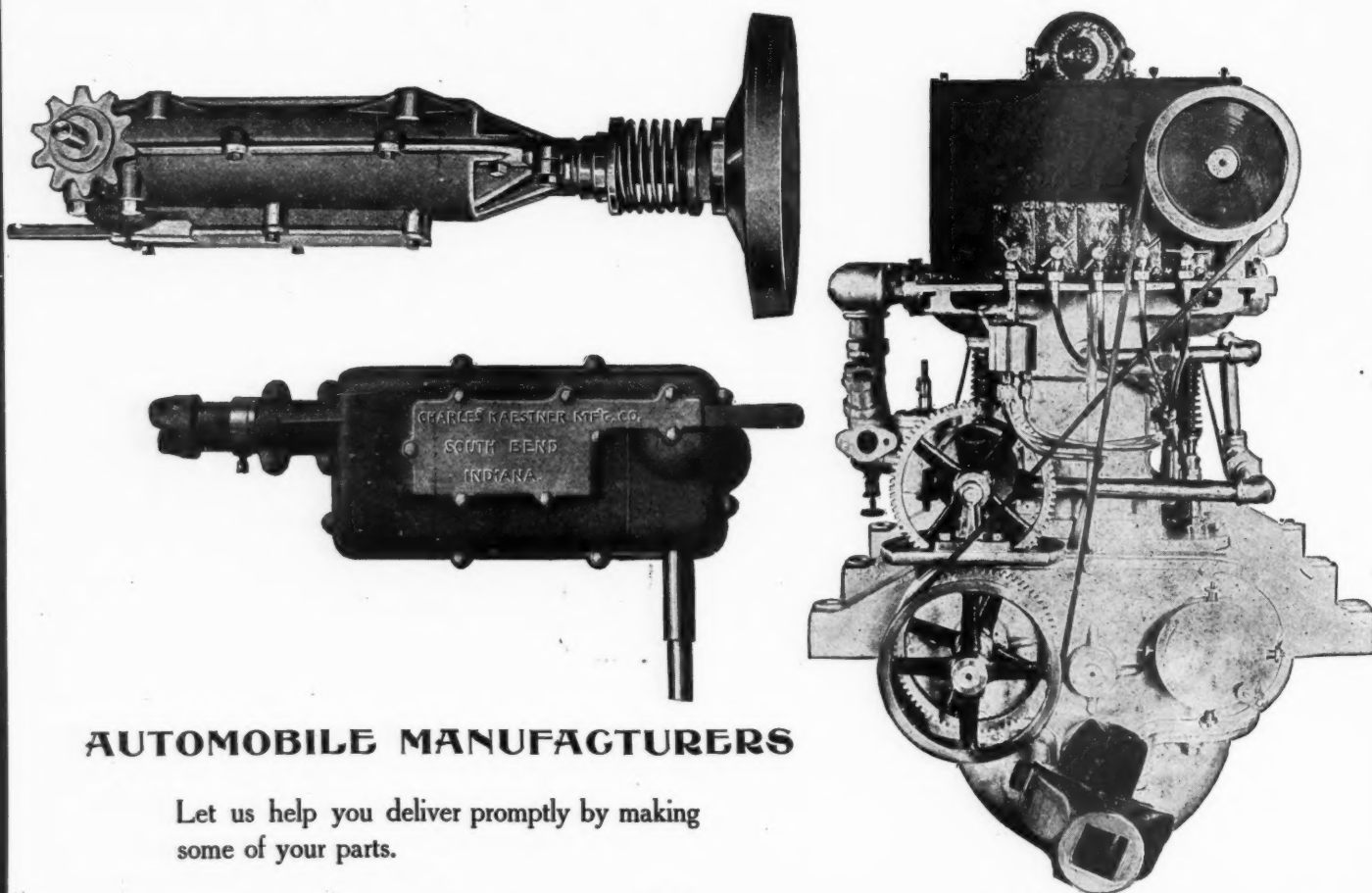
FACTORY, Hanover, Germany.



Albany, N. Y.....	The Albany Hardware & Iron Co.	New Haven, Ct.....	The Campbell Cycle & Motor Co.
Boston, Mass.....	The Angier Co., 43 Columbus Ave.	New York City, N. Y.....	The Auto Supply Co., 1662 Broadway.
Bridgeport, Ct.....	The Automobile Repair Co.	New York City, N. Y.....	The Motor Car Equipment Co., 43 Cortland St.
Brooklyn, N. Y.....	A. G. Southworth, 334 Flatbush Ave.	New York City, N. Y.....	Leon Rubay, 140 West 38th St.
Buffalo, N. Y.....	Ephraim Bros., 557 Main St.	New York City, N. Y.....	A. S. Sherwood, 1557 Broadway.
Chicago, Ill.....	The Excelsior Supply Co., 237 East Randolph St.	Paterson, N. J.....	The Auto Shop, 448 Broadway.
Cincinnati, Ohio.....	The Cincinnati Automobile Co.	Philadelphia, Pa.....	Messrs. Jas. L. Gibney & Bro., 828 Arch St.
Cleveland, Ohio.....	The Automobile Garage & Repair Co., 404 Huron St.	Pittsburg, Pa.....	The Standard Automobile Co., East Liberty.
Colorado Springs, Colo.....	R. A. Miller.	Rochester, N. Y.....	The Rochester Automobile Co., 150 South Ave.
Denver, Colo.....	The Consolidated Supply Co.	San Antonio, Tex.....	The Rambler Automobile Co.
Detroit, Mich.....	The Automobile Equipment Co., 251 Jefferson Ave.	San Francisco, Cal.....	Geo. H. Bill, 305 Larkin St.
Los Angeles, Cal.....	The Western Motor Car Co.	South Norwalk, Ct.....	The Fox Cycle & Hardware Co.
Newark, Ohio.....	The Hoover-Ball Co.	Springfield, Mass.....	E. R. Clark Automobile Co.
Newark, N. J.....	The Motor Car Co. of N. J., 291 Halsey St.	St. Louis, Mo.....	The Continental Tire Agency, 3908 Olive St.
		Washington, D. C.....	The National Electrical Supply Co., 1330 N. Y. Av.

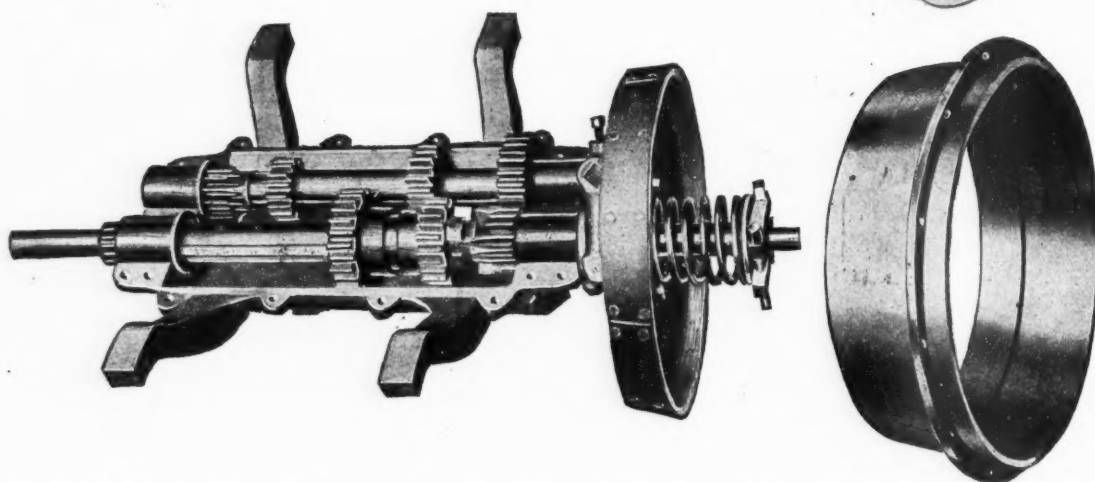
Madison Square Garden Auto Show, N. Y., January 14-21, Spaces 20-21.
 Importers' Auto Salon (Macy Building) N. Y., January 11-25.
 Coliseum, Chicago, February 4-11, Spaces 282-283.

KAESTNER PRODUCT



AUTOMOBILE MANUFACTURERS

Let us help you deliver promptly by making some of your parts.



If You Want the Best Buy Kaestner Goods

WE NOW MAKE 18 different styles of Transmissions. Motors from 10 to 125 H. P. for Automobiles, Boats and Mining Machinery. Side Lever Controls, Wheel Steering Devices. Can deliver to specified contracts.

SEE AT THE CHICAGO SHOW, GALLERY ANNEX SPACE 292

CHAS. KAESTNER MFG. CO., SOUTH BEND, INDIANA

The New Northern Touring Car

Unique and original construction, with practical advantages not to be had in any other car at any price. Remarkable for compactness and simplicity of all working parts.

Some Exclusive Features:

Three Point Motor Support, insuring perfect alignment of machinery over all roads.

No Belts, Chains or Gaskets.

No Strut Rods or Truss Rods.

24-inch Fly Wheel just back of radiator.

Fan Cast integral in Fly Wheel.

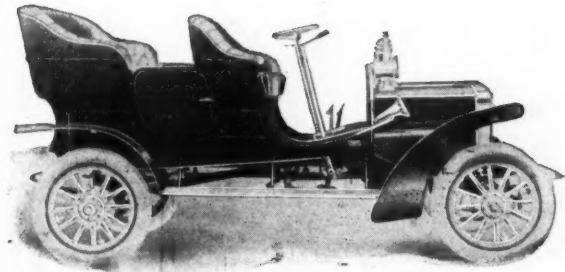
Only one universal joint.

Only three vital points to oil.

Full sized side door opening, on straight line to side step.

Every part can be reached without getting under car.

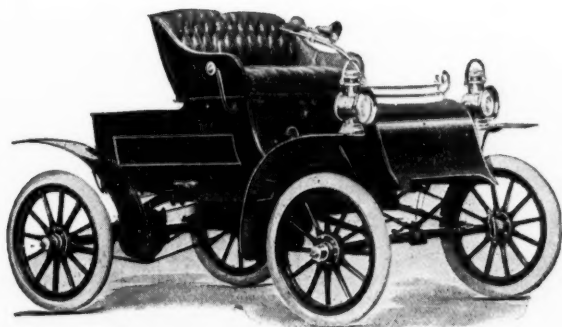
Enclosed driving shaft supported on roller bearings.



Northern Touring Car, \$1700

(Side Entrance)

Wheel base, 100 inches; gauge, 56 inches; wheels, 30 inches; tires, 4 inches. Motor, $5\frac{1}{4} \times 5\frac{1}{4}$, double-opposed cylinders, developing 17 B. H. P. Transmission, planetary type, 2-speed forward and reverse. Weight, 2,000 lbs. Choice of four bodies, all interchangeable: Two-passenger body, five-passenger rear entrance, five-passenger side entrance, or Limousine body.



Northern Runabout, \$650

Wheel base, 67 inches; gauge, 56 inches; wheels, 28 inches; tires, 3 inches.

Beautifully finished and comfortably cushioned. The ideal Runabout for every purpose and for all roads.

The Sturdy Northern Runabout

with 1905 improvements is better than ever. Body enlarged, larger fenders, larger oil cups, and full back molded seats.

The Trunion Body Hanger, our own original invention, supports the body independent of the frame and motor, absorbing all jar, no matter how bad the roads.

Motor starts from the seat. One lever operates high, low and reverse speeds. Front axle has ball bearings; rear axle has self-lubricating roller bearings which require no adjustment.

From every standpoint the Northern Runabout is best for all roads and all conditions.

It will pay you to write for Catalogue 14, which tells about "Northern" improvements

Northern Manufacturing Company

DETROIT, MICH.

**A New Star in
the Firmament**

**THE
"DUQUESNE"
CAR**

The Surprise of the Season



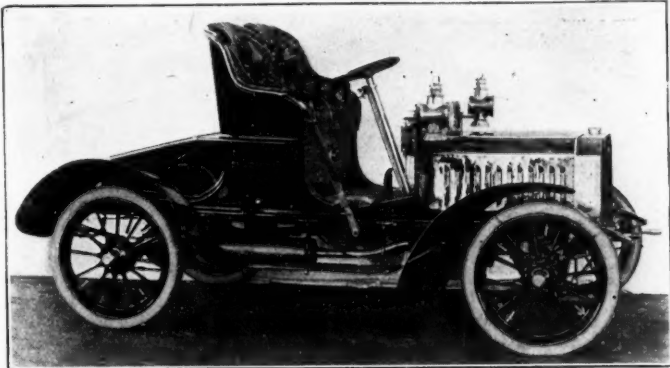
"HALF OF THIRTY-FIVE"



Particulars Next Issue

COMPOUND

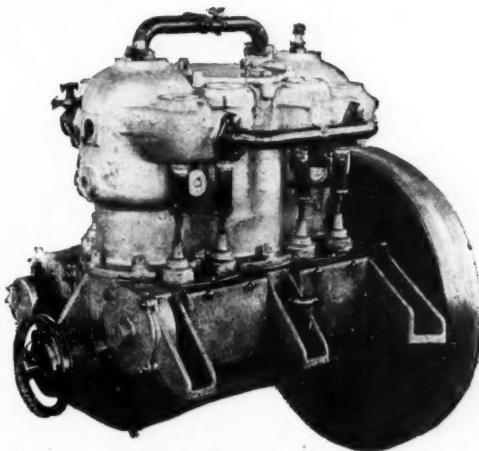
Gasolene Cars for 1905



Model 4½, \$1,200

Model 4, with Side Entrance Tonneau, \$1,400

The Only
COMPOUND
Gasolene Motor
Manufactured



12-15 H. P. Motor

12-15 H. P.

Weight with Tonneau 1,750

81-inch Wheel Base

3x28 Tires

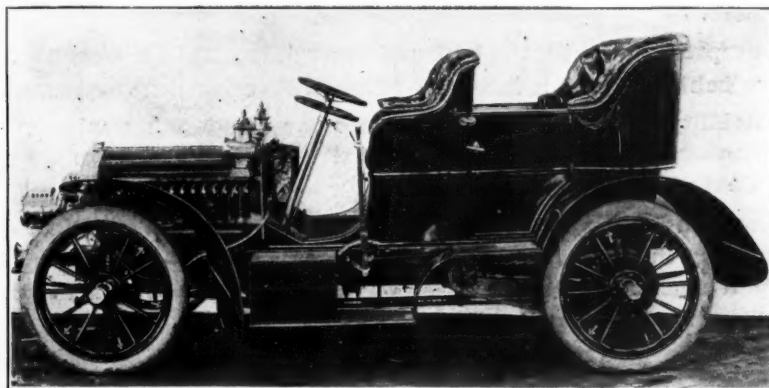
Shaft Drive

All models have
sliding gear
transmission,
three speeds,
forward and re-
verse, aluminum
bodies and fenders

100-inch
wheel base

34 x 4

tires



Model 3, \$2,000

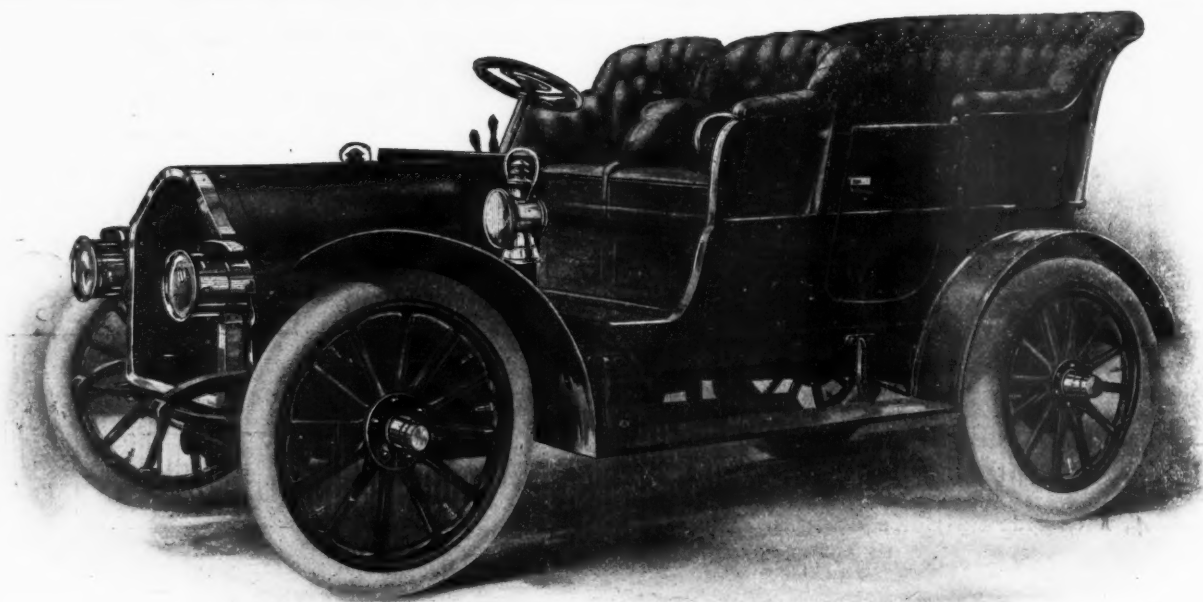
24-28 H. P.

Weight

2150

WE EXHIBIT AT NEW YORK SHOW
THE E. H. V. CO., Middletown, Conn.

Orient Touring Car, Model de Luxe



18-20 Horse Power

Price, \$2,250

Here is an illustration of the handsomest motor car ever sold under four thousand dollars.

Several men who are widely known in the trade have commented on the strong resemblance between this car and some of the highest priced foreign models.

There's a reason for that--which is our secret.

One man, who is known from Maine to California as an expert motorist, said our Model de Luxe had the handsomest lines he had ever seen.

We are inclined to agree with him.

But the beauty isn't all in the lines--it's partly in the engine.

This engine is a 4-cylinder, vertical tandem, with a Positive Air-cooling System, which consists of a direct, circulating air-blast from a powerful 4-bladed fan, the air-blast reaching every part of the specially flanged cylinders.

It is a motor that represents all that is best and most practical in air-cooling. The Waltham experience and reputation are behind it, and it has come through its critical tests without a sign of over-heating.

In simplicity, reliability, and in power and speed for weight, this will prove itself the best motor of the year. And remember, we use 4-cylinder vertical tandem engines on all the cheaper touring cars as well as the Model de Luxe.

The Waltham Company is the only concern which will have a complete line of eight cars in the market. Dealers handling the Orientals will have this advantage--of being able to sell the man who can just afford to buy a Buckboard for \$375; or the man who is willing to pay \$2,250 for a de Luxe Touring Car; and all the "in between."

WALTHAM MANUFACTURING CO.

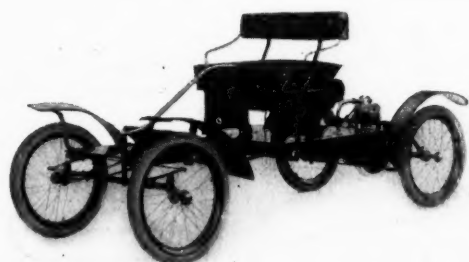
Members of Association of Licensed Automobile Manufacturers

FACTORY AND GENERAL SALES OFFICES

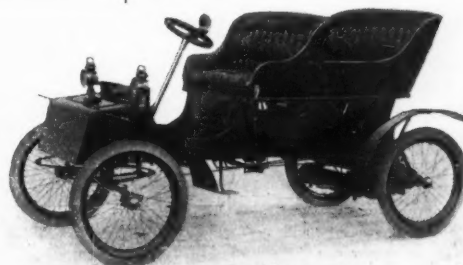
WALTHAM, - MASS.

Sales Office for New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Florida and Georgia....44 BROAD ST., NEW YORK CITY

Orient Buckboards, 1905 Model, \$375



Buckboard, Price \$375



Tonneau, Price \$525

This famous line of light, 4-horsepower cars is going to be more popular than ever during the coming season, and we have made ample provision for immediate deliveries. The cars have been improved and made fool proof, and the prices have been materially lowered. There is the Buckboard at \$375, the Surrey at \$450, the Runabout at \$475, and the Tonneau at \$525.

There are two good reasons why you should sell the Orient Buckboards. They meet the demand of hundreds for a low priced, reliable automobile. And they lead to the sales of larger cars.

WALTHAM MANUFACTURING CO.

Members of Association of Licensed Automobile Manufacturers

FACTORY AND GENERAL SALES OFFICES
WALTHAM, - MASS.

Sales Office for New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia,
North Carolina, South Carolina, Florida and Georgia.....44 BROAD ST., NEW YORK CITY

SEE SEPARATE ADVERTISEMENT ON THE LATEST ORIENT AIR-COOLED TOURING CARS

BENZ-PARSIFAL MOTOR CARS

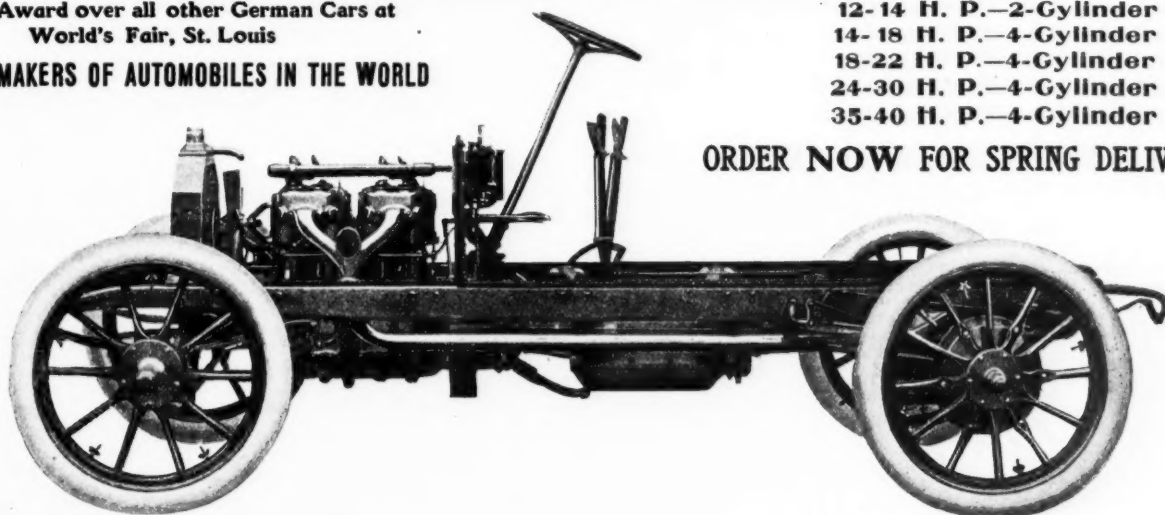
Manufactured by BENZ & Co., Mannheim, Germany

Highest Award over all other German Cars at
World's Fair, St. Louis

OLDEST MAKERS OF AUTOMOBILES IN THE WORLD

12-14 H. P.—2-Cylinder
14-18 H. P.—4-Cylinder
18-22 H. P.—4-Cylinder
24-30 H. P.—4-Cylinder
35-40 H. P.—4-Cylinder

ORDER NOW FOR SPRING DELIVERIES



MEAD MOTOR CO.

1243-45 Wabash Ave.
CHICAGO

Exclusive Importers BENZ & CO. Mannheim, Germany \$3,000 to \$10,000

Chicago Agents for THE MOLINE 4-Cylinder :: \$1,600
2-Cylinder :: \$1,000

Chicago Agents for THE GALE Runabout :: :: \$500

THE HEIGHT OF THE SEASON FOR THE PREMIER AIR-COOLED

IS

JANUARY



and JULY

Did you ever stop to think when you saw your neighbor in New York drive away in his Premier, the thermometer at zero, that the other fellow's neighbor in Los Angeles was enjoying the same privilege with the thermometer at 80 degrees?

It's a business proposition for agents

It's a satisfactory proposition for drivers

Get the "Car of Quality" and have a satisfactory business proposition for next year. (The air-cooled has no season.)

PREMIER MOTOR MFG. CO. : : INDIANAPOLIS, IND.

HORSE POWER

FOR 1905

Some of our competitors try to make Cadillac dealers believe that we lack sufficient horsepower, and that we only "claim six and one-half horsepower." It is true we rated our 1903 engine at but six and one-half horsepower and our 1904 engine at eight and one-quarter horsepower. We had an object in doing this. We knew we had sufficient horse power to driver a Cadillac over any road and up any hill that any automobile would go. No Cadillac engine was sent out of our engine factory that would not test above eight and one-half horsepower actual brake test after one hour's run on the block.

we have continued to use the same engine in all models under \$1000 in price. We are confident that we have increased the horsepower delivered to the ground. We gear the heavier models for moderate speed and great power, the light ones for both power and speed. The superior construction of all models enable us to assure all prospective customers of greater road ability than we gave last year. The Cadillac has all the power necessary to drive it anywhere at reasonable speed. We've never claimed any more than we had. A Cadillac engine has on several occasions demonstrated its ability to do more work than some so-called 12 to 16 horse power gasoline engines can do when mounted in a carriage.

CADILLAC AUTOMOBILE COMPANY, Detroit, Mich.

MEMBERS ASSOCIATION LICENSED AUTOMOBILE MANUFACTURERS.

1905 ANNOUNCEMENT

The Autocar

A New Type

We believe that the Autocar in all its types represents the highest excellence in automobile design, workmanship and material. Every Autocar is built on honor. We feel, therefore, that our new type will meet with a cordial reception.

This car, **Type XI**, larger and more powerful than the other types, has a four-cylinder vertical engine of 16-20 horsepower. The body is built on the newest and most approved French lines. The front seat is divided and both front and rear seats are large and comfortable.

While this car is built upon the tried Autocar principles which have been so splendidly proven, it shows a number of very important improvements making for increased simplicity, ease of operation, safety and comfort.

In fact, though Autocars have always been noted for absence of bewildering intricacy of mechanism, yet no one can but be impressed with the extreme simplicity of this new car. It is a triumph in scientific construction and arrangement.

This car has more than met our highest expectations in the road test. In fact its performance has been a surprise to experienced automobile men. The power of the car carries it, fully equipped and loaded with five passengers up tested 12 per cent grades for instance, at 20 to 25 miles per hour on the direct drive, while on the level the car attains a speed of 40 to 45 miles. The car is a superior climber on any hill.

Altogether our eight years' experience has enabled us to produce in this type, a four cylinder car we are assured cannot be surpassed by any similar car at any price.

The Price of **Type XI** is \$2,000. Ready for delivery January 16.

Type VIII.—Four-Passenger Car (at \$1,400) and **Type X**.—Runabout (at \$900) have made Autocar Reputation. Each stands at the head of its class for value and efficiency.

Autocars, Types VIII, X and XI will be on exhibition at the New York Automobile Show, Madison Square Garden.

Catalogue descriptive of the 1904-05 types will be sent free upon request. This catalogue contains also addresses of our dealers throughout the country who will be glad to give demonstrations to prospective automobile purchasers and explain in detail the merits of our cars.

THE AUTOCAR COMPANY
ARDMORE, PA.

Member Association of Licensed
Automobile Manufacturers.

Peerless

The Car
of
Achievement



Concerning Limousines

At this season of the year, those who have come to depend upon the motor car for constant service turn their attention to the limousine, a type of car which offers complete protection from the elements.

The Peerless Limousine

has a unique record for hard cross-country service. A Peerless limousine won a Certificate in the St. Louis tour of the A. A. A. Other Peerless limousines, in everyday use throughout the season, have firmly established the reputation for this style of Peerless cars as being, like our touring cars,

In a Class by Themselves

Send for the limousine booklet we have just issued.

Peerless Motor Car Co.
CLEVELAND, OHIO

Members Association Licensed Automobile Manufacturers.

THE MICHIGAN

LIGHT TOURING CARS

FOR 1905

TWO MODELS "E" AND "D"

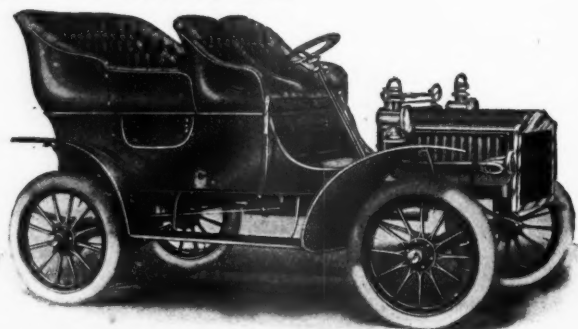
We shall be at the New York and Chicago Shows

"The Car of Power"

GET IN LINE FOR A MICHIGAN AGENCY
WHILE YOU CAN GET ONE

This superb new creation for the coming season must be seen to be appreciated. It first appeals to the purchaser by its beauty, then it satisfies him by its SPEED, STRENGTH and DURABILITY.

These cars have our tried and tested 1904 Motors, 14-horsepower, 2-cylinder, horizontal, opposed. Strong planetary transmission, Warner differential, Hill Precision Oiler, Kingston or Schebler carbureter, expanding rear hub brakes, full elliptic springs, 86 inch wheel base, 30 inch wheels, 3½ inch tires, side entrance body, individual front seats.



MADE BY
MICHIGAN AUTOMOBILE CO., Kalamazoo, Mich.

Model E, 1905 Michigan—Price \$1,250

A MATTER OF SATISFACTION

The Royal Tourist

32-38 H. P.

\$3000⁰⁰

Its equal has never been produced before

New York Show, Section "M."

Chicago Show, Stands 33-34-35

WRITE DEPT. 2 FOR CATALOGUE

ROYAL MOTOR CAR CO., CLEVELAND, OHIO

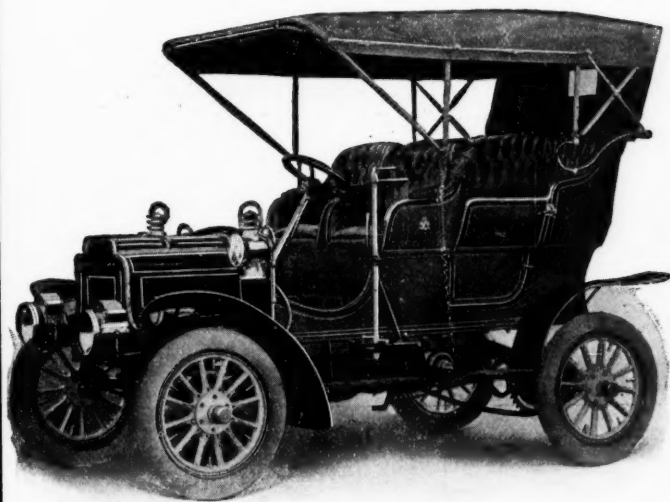
NEW ENGLAND AUTOMOBILE CO.,
182 Columbus Ave.,
BOSTON.

C. A. DUERR & CO., INC.
Broadway and 58th St.,
NEW YORK.

HARRY BRANSTETTER CO.,
CHICAGO.

The Old Reliable Waterless Knox Cars for 1905

Higher in Quality
Lower in Price



Superb in Style and Finish

The Knox 1905 two-cylinder air-cooled machine is as quiet and smooth working as any four-cylinder machine, with only half its complications.

AWARDED GRAND PRIZE
at the Universal Exposition
St. Louis, 1904

14-16 H. P. Side Door Tonneau, \$1900

14-16 H. P. Convertible Surrey, \$1750

14-16 H. P. Folding Front Seat Runabout, \$1500

Single Cylinder Folding Front Seat Runabout, \$1250

1905 Models will be on exhibition at the New York and Chicago Automobile Shows.

KNOX AUTOMOBILE CO.,
SPRINGFIELD, MASS.

Members Association Licensed
Automobile Manufacturers

Selling Agents in all Principal
Cities

LANDMARKS

IN

Columbia

HISTORY

1898 A **Columbia** Car won the first regularly organized track race held in America.

1900 A **Columbia** Car met every test in the Philadelphia-New York Endurance Run.

1901 Three **Columbia** Cars led in the New York-Buffalo Endurance Run.

1903 A **Columbia** 24-H. P. Car established a record of 76 hours elapsed time between Chicago and New York and led its class in the New York-Pittsburg Endurance Run.

A **Columbia** Electric Car established a record of 22 hours, 52 minutes, running time, between Boston and New York, which remains unbroken.

1904 A **Columbia** 12-14-H. P. Car won two first prizes in the Mt. Washington climbing contest, July 11-13.

A **Columbia** 30-35-H. P. Car lowered the New York-Chicago record to 58 hours, 35 minutes, elapsed time.

A **Columbia** 16-H. P. Car won its class event in the Eagle Rock hill-climbing contests, November 24th.

Columbia Cars were awarded the **Grand Prize** at the World's Fair, St. Louis.

All of these Distinctions were won by regularly-equipped stock **COLUMBIAS**

FOR 1905 **Columbias** will exemplify the best that has been accomplished during the past year towards bringing the automobile to perfection.

Full information covering new gasoline and electric models will be sent on request.

Dealers: Write for our Agency Proposition.

Electric Vehicle Company

HARTFORD, CONN.

NEW YORK

BOSTON

CHICAGO

134-138 West 39th Street

74 Stanhope Street

1413 Michigan Ave.

Member Association Licensed Automobile Manufacturers

Notice to the Trade.

We have entered suit against the United States agency of the Michelin Tire Co. for infringement of G & J Patents, and the trade is warned against the purchase of such tires.

The following manufacturers are licensed under G & J patents:

Hartford Rubber Works Co.
The B. F. Goodrich Co.
Diamond Rubber Co.
Morgan & Wright
Fisk Rubber Co.

Continental Caoutchouc Co.
Goodyear Tire & Rubber Co.
International Auto & Vehicle
Tire Co.
India Rubber Co.

G & J TIRE CO., MAIN OFFICE AND FACTORY **Indianapolis, Indiana**



HERE IT IS:

The 1905 Fisk Construction

HEAVY CAR TYPE

IMPROVED FASTENINGS

**The Fisk Rubber Company, CHICOPEE FALLS
MASSACHUSETTS**

BRANCHES: New York, 754-756 Seventh Ave., Chicago, 52 State Street

BOSTON,
SPRINGFIELD,
SYRACUSE,

BUFFALO,
DETROIT,
SAN FRANCISCO,

PHILADELPHIA,
ATLANTA,
ST. LOUIS,

OMAHA,
MINNEAPOLIS,
DENVER,

LOS ANGELES,
LONDON,

Send for Circular No. 8

If you are going to build automobiles you will want this circular. It describes our Axles, Change Gears, Cone Clutches, Mufflers, Steering Gears and other standard parts. All of these parts have been designed with unusual care. They are suitable for cars of all classes.

**FEDERAL MANUFACTURING COMPANY,
ELYRIA, OHIO.**

Selling Agent: HAYDEN EAMES, American Trust Building, Cleveland.

NEW YORK SHOW: Section "D" Concert Hall. CHICAGO SHOW: Gallery spaces 240, 241, 242, 243 and 244.

NON-SKIDDING

SAMSON

Leather Tire and Protector

NON-PUNCTURABLE

Paris

Berlin

London

Brussels

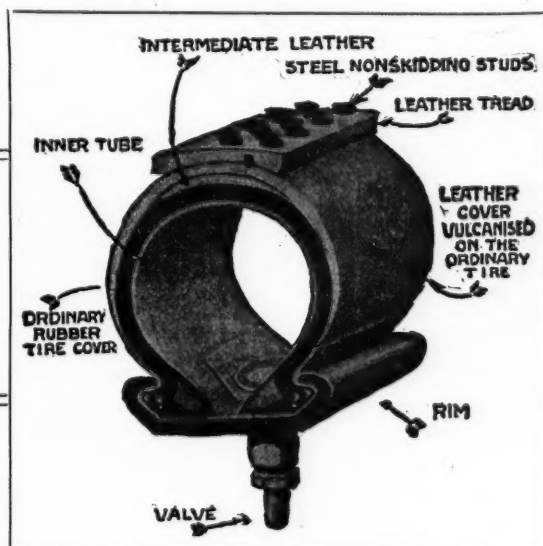
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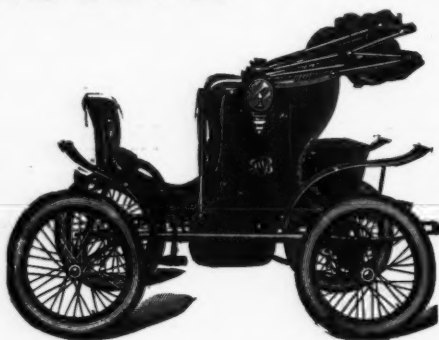


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THE LIGHTEST
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ABSOLUTELY SAFE
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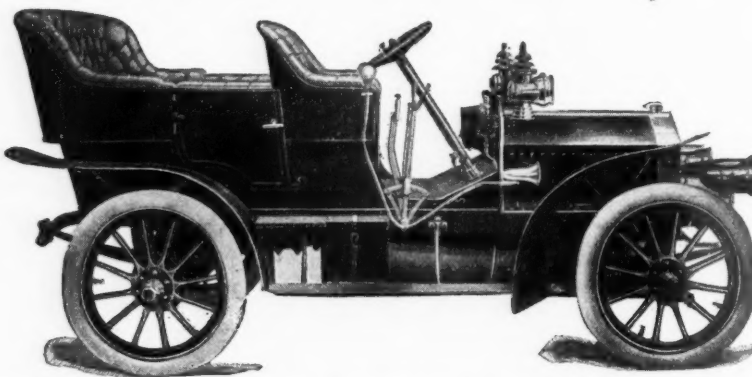
Attractive in Rich Finish and Design. ♣ Simply Manipulated. ♣ Always Satisfactory.
A Carriage Any Lady Can Drive.

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THE BAKER MOTOR VEHICLE CO., Cleveland, Ohio

THE "CLEVELAND"

A High-Grade, Light-Weight Touring Car



18-h. p. Four Cylinder Vertical Engine. Price \$2,800

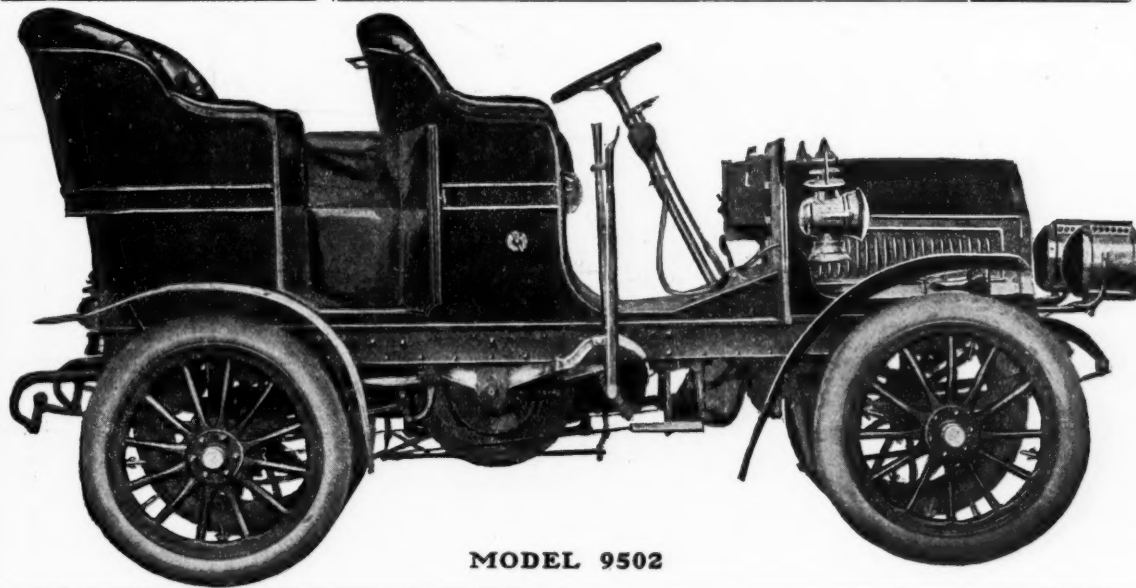
FEATURES:—91-inch wheel base; pressed steel frame; aluminum underbonnet; spark and throttle control on top of steering wheel; three speed transmission with direct drive on high speed; mechanically actuated inlet and exhaust valves; jump spark ignition; side door entrance.

We are establishing agencies. Write for particulars.

CLEVELAND MOTOR CAR CO., Cleveland, O.

1905**STUDEBAKER**

"THE AUTOMOBILE WITH A REPUTATION BEHIND IT."

Gasoline**MODEL 9502**

**Side Entrance
Two Cylinder
Gasoline Car
Price, \$1350.**

**or
With Rear Entrance,
\$1250.**

including Side Lights, Tail
Light and Horn.

*The Studebaker Elec-
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ready, and is without
question the handsomest
machine of its type ever
constructed.*

STYLE. This is best appreciated when it is compared with other cars.
SIZE. Capacious seats and ample leg room for five occupants.

FINISH. In upholstery and appointments it is fully equal to the highest priced cars.

SPECIAL FEATURES. The least vibration of any car of its class. All working parts easily accessible and well protected. Light feed oiler on dash keeps all engine bearings thoroughly lubricated. Ample locker space for baggage. A 10,000 mile test applied to each of several cars, selected at random, brought no accident and revealed no flaws. Every part of this car is "Studebaker" quality.

Studebaker Automobile Co., South Bend, Ind.

Member Association Licensed Automobile Manufacturers

CONTROL. The method of control is the simplest and surest known in automobile practice, and is within the ready comprehension of an inexperienced person. An improved form of planetary change gear, extremely durable and free from noise, is used. Speed may be regulated at will by a foot lever, leaving both hands free for steering. Brakes act both on rear axle and rear wheel hubs. One turn of the crank starts the engine. For complete details write for catalogue.

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The Jackson Model "C"

1905

Up-to-date in all Features

The best material and workmanship that money can get is used in the construction of all our 1905 models.

Our experience in building Automobiles, which has extended over a period of three years, has enabled us to eliminate the troublesome small defects, which are bound to come out with new makes of automobiles.

In our **Model "C"** Touring Car, we have embodied the following points, which the posted automobile public will recognize as being essential to the up-to-date 1905 touring car:

Price \$1,250

18 Actual horse-power; 2 Opposed cylinders; 5-in. stroke, 5-in. bore. An engine that is noiseless and runs like a watch. 1,500 pounds; 3 to 40 miles per hour; 90-in. wheel base; Cellular Radiator; King of Belgium body; seats FIVE people; side door entrance Tonneau; w^l de Fenders with Running-board; Divided Front Seats; Locking Steering Device; Rides like a Pullman. Controls as easy as an Electric.

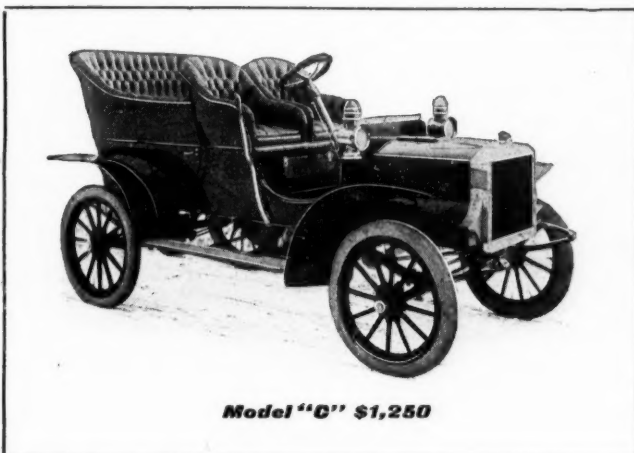
We have increased our manufacturing facilities and can take care of a few more agents.

OUR AGENTS ARE:

Hagmann & Hammerly, Chicago
Jackson Auto Co., Buffalo
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We have a Runabout at \$650 and a Touring Car at \$1,125
Write for our 1905 Catalog

JACKSON AUTOMOBILE CO.,
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**Model "C" \$1,250**

1905 Thomas 40-Horse "Flyer"

\$3,000

WITH EXTENSION TOP
SIMILAR TO CUT
\$3,150



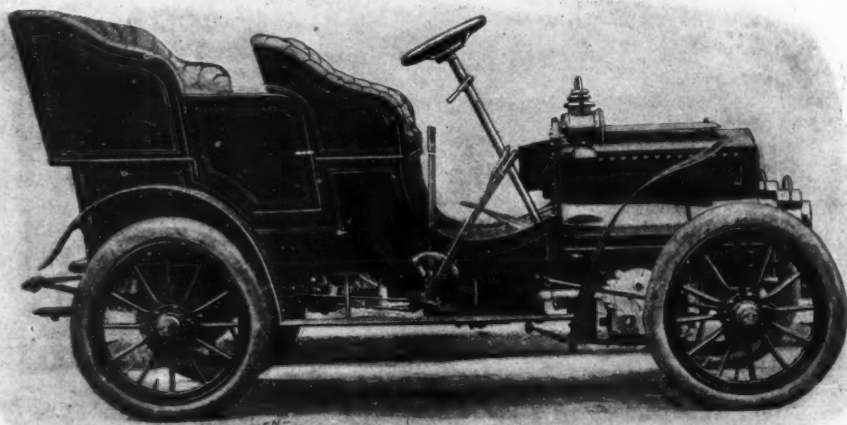
The Car that is Creating a Sensation at Home and Abroad. Place your order NOW, for we are nearly sold out.

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A CAR THAT WILL "STAY SOLD"

With all the specifications of \$3,000 cars, with 20 H. P., sliding gear transmission, 3 speeds ahead, direct drive, two cylinder opposed, set

crosswise in front, and above all a car SIMPLE in construction and operation, should get a demonstration early at shows in order to secure valuable territory. Best discount, and generous terms and contracts to agents. New Catalog.

Reid Manufacturing Company

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NATIONAL CHAINLESS, MODEL C.
SIDE ENTRANCES
THREE IN REAR--TWO IN DIVIDED FRONT SEATS
DETACHABLE TONNEAU
BEST OF FINISH AND TRIMMING
NEW ROUND RADIATOR OVAL HOOD
LIST PRICE, \$2,500.00

The Best Touring Car Agency in America For 1905

National Motor Vehicle Co.,

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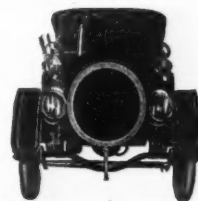
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"C"

"GOES THE ROUTE"

With NATIONALS You
Lead - - Others Follow

Four cylinder 4 1-4x5 vertical.
Bevel gear drive.
Double ball bearing slide gear transmission--direct on high.
Hardened steel gears.
Gear driven commutator.
Rear wheels revolve on double ball bearings on outside axle tube.
All weight taken off inner axle and differential.
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Pressed steel frame. Long wheel base. Engine and transmission on sub frame. Double steering connections.



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General Offices and Factory: 242-244 West 41st St., New York City.

TOURING CARS, RACING MACHINES, DELIVERY WAGONS AND TRUCKS

For the Business Man, the Busy Man and the Rich Man

**FLEXIBILITY OF POWER SUCCESSFULLY REALIZED--EITHER 12, 18, 24 OR 30
H. P. IMMEDIATELY AVAILABLE AND CONTROLLED FROM SEAT AT WILL
OF OPERATOR, WITH PROPORTIONATE FUEL CONSUMPTION, SOMETHING
NEVER BEFORE ACCOMPLISHED**

All the Popular Features, essentially up-to-date, combining more Radical Improvements than any other Machine before the Public

POWERFULLY CONSTRUCTED--Absolute Perfection--Conservative Price

IT STANDS ALONE IN POPULAR FAVOR

BUILT RIGHT--STARTS RIGHT--RUNS RIGHT--STAYS RIGHT

Every part made in our own Factory, under direct personal supervision

SEE EXHIBITION, SPACE N-1, MADISON SQUARE GARDEN AUTOMOBILE SHOW, JANUARY 14-21, 1905

When in New York, call at our factory, in the heart of the city, and learn all about Modern Automobile Construction.

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FIFTH ANNUAL Automobile Show

Under the auspices of the Automobile Club of America,
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and Madison Square Garden Company at
Madison Square Garden

NEW YORK

JANUARY 14th to 21st, 1905

JAMES C. YOUNG, Manager

RAILROAD RATES Only those visitors to the New York Show who are members of the American Automobile Association or the American Motor League may take advantage of the reduced railroad rates granted to those organizations. The railroad companies will positively refuse to grant a rate to any one except members of one or both of the organizations named.

NO REDUCED RATE HAS BEEN GRANTED BY THE PASSENGER ASSOCIATIONS ON ACCOUNT OF THE SHOW AND NONE WILL BE.

Those who desire to become members of either of the organizations named, and so take advantage of the rate, should write immediately for details to

C. H. GILLETTE, Sec'y, American Automobile Association,
29 W. 42d St., New York City.

ISAAC B. POTTER, Pres't American Motor League, Vanderbilt Bldg., New York City.
Every manufacturer of Automobiles of importance in the United States will exhibit at the New York Show.

SPECIAL NOTICE

The trade admitted free up to 1 o'clock each day upon presentation of business card and registering name and address at the BUREAU OF INFORMATION.

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Chicago Automobile Show

February 4-11.....1905

Every manufacturer of Automobiles of importance in the United States, will exhibit at the Chicago Show.

RAILROAD RATES

The passenger associations have granted a reduced rate, to members of the American Motor League, for the Convention to be held at the same time as the Chicago Show.

THEY HAVE NOT granted a reduced rate on account of the Chicago Show.

Persons who are not members of the A. M. L., but who desire to take advantage of the rate may apply, for details, to Isaac B. Potter, President, Vanderbilt Building, New York.

S. A. MILES, Manager

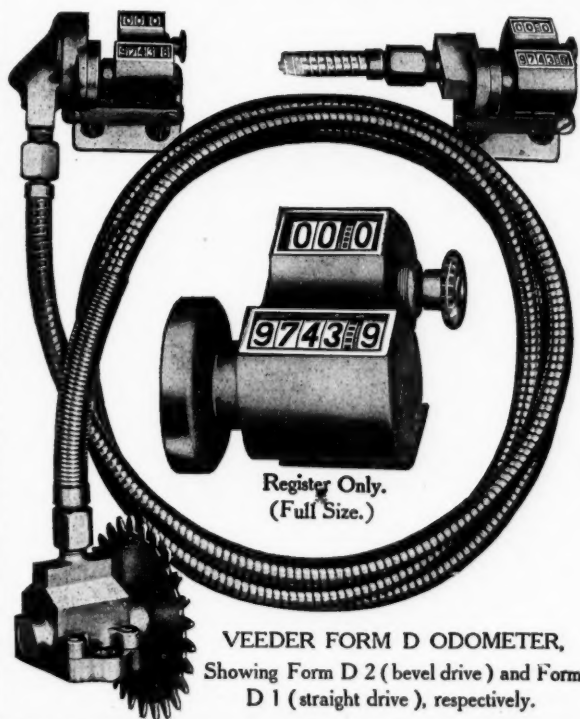
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Form D ODOMETER

For the
dashboard



Register Only.
(Full Size.)

VEEDER FORM D ODOMETER,
Showing Form D 2 (bevel drive) and Form
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This instrument has two dials, the upper one of which may be set to zero in the start of each day or trip, while the lower keeps a record of the total distance traveled. Both dials register in tenths of miles, the right-hand figure on each being in red. The figures are of good size, and, instead of being separated and spread over a large area, are compactly arranged.

A flexible shaft from the left front wheel of the car drives the instrument. In the Veeder Form D Odometer this shaft operates at a comparatively slow speed, avoiding breakage and excessive wear. We supply the Form D1 or the Form D2 according to the car for which instrument is ordered.

Price Complete with Fixtures, \$25

The Veeder Mfg. Co.

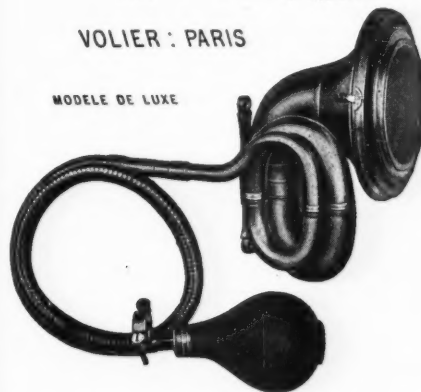
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Cyclometers, Odometers, Tachometers,
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VOLIER : PARIS

MODELE DE LUXE



The Volier Dragon

This is the original and genuine Volier, with non-corrosive reed and chemically cured bulb. The price is \$10.00 for the 6-inch bell, and \$12.00 for the 7-inch bell. Imitations of this horn will doubtless appear. They are only imitations.

The Post & Lester Co.,

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A SPECIAL PARTY will leave CHICAGO for NEW YORK to attend the AMERICAN AUTOMOBILE ASSOCIATION MEETING, Saturday, January 14th, 11:05 a. m. and will arrive at New York Sunday, January 15th, at 4:30 p. m.

VIA

GRAND TRUNK---LEHIGH VALLEY ROUTE

The Double Track Highway

TRAINS LEAVE Chicago daily at 11:05 a. m., 3:02 p. m. and 8:15 p. m.
DINING CARS on all trains serving meals a la carte.

For Sleeping Car Reservations or any further information apply to

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G. W. VAUX
A. G. P. & T. A.

135 Adams Street, Chicago, Ill.

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This Space Next Week
 AND
Our Exhibits at the Shows
OUR NEW FOUR-CYLINDER

The Best that Money and Brains Can Make (Actual) 28 H. P.
\$2,750.00

ACME MOTOR CAR COMPANY,
READING, PA.

DEVLIN & COMPANY,
 1407 Michigan Blvd., Chicago, Ill.
 Our Western Distributors.

We will exhibit
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 and Chicago Shows



MEET THEM ON THE BEACH!

You will meet more of your friends
 in motoring on the world famous

Ormond-Daytona Beach Course

January 23 to 28

than you will meet again at one time
 at a race meet in a lifetime.

The elite of automobilism will assemble on the record-breaking sand course. The tide will bear away on its bosom daily chips from the world's records. The music of the surf will furnish an orchestra, while the giants of motoring clash in battle. It will be the treat of your life to see the races and spend a week amid orange groves, on sea shore and in balmy June sunshine.

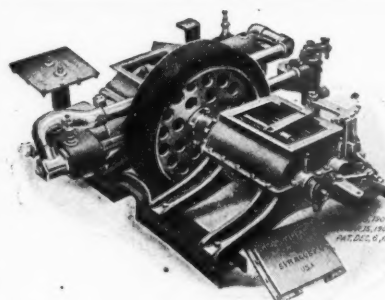
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 AUTOMOBILE
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**BRENNAN
 Standard Motors**

are unexcelled for simplicity of construction, substantial and large bearings, ease of adjustment. All parts unusually accessible for inspection.

Built in 6, 8, 12, 14, 16 and 20 h. p. Investigation solicited.

We make a specialty of Motors for

**THOMAS MODEL 18, CADILLAC
 FORD AND OLDSMOBILE**

DORCHESTER, MASS., September 24, 1904.

Brennan Motor Co., Syracuse, N. Y.

GENTLEMEN: The 14-H. P. motor which we purchased of you last January we have mounted in a car that weighs 1,850 pounds. Car has been driven 4,000 miles and the motor has given excellent results and drives the car 40 miles an hour. We made the run from Syracuse to Utica in 2 hours and 20 minutes. Total time from Syracuse to Albany 8 hours; time from Boston to Syracuse 20 hours.

The car weighs with two passengers and luggage 2,350 pounds. We also wish to state that after using several makes of carbureters that we obtained the best results from your make of carbureter.

Yours truly,

NAME WILL BE GIVEN ON APPLICATION

Write for Particulars.

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 NON-PUNCTURE
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Safe, Speedy and
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THE HAPPY MEDIUM

The St. John Solid Rubber Cushioned Tire

The greatest tire man's ingenuity ever produced.

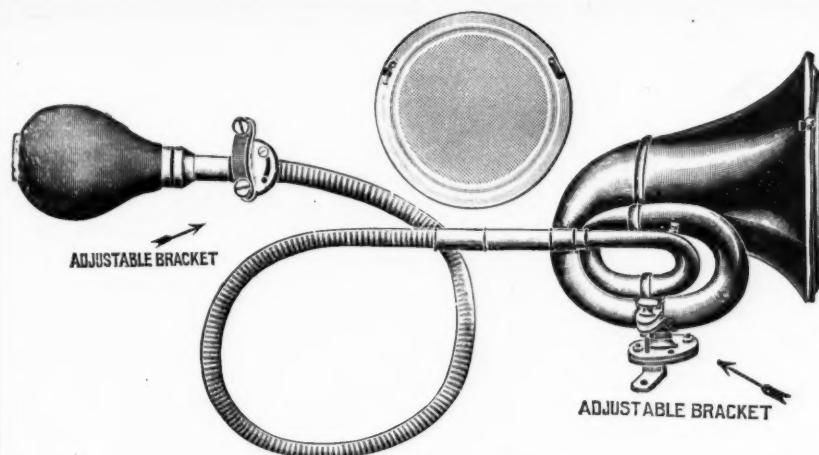
The tire that solves the most vexing problem now presented to both the manufacturer and private owner of automobiles.

It cannot PUNCTURE. Perfectly RESILIENT, and saves one-third the power now expended on other tires. Fits regular Single and Clincher rims. Easily applied.

Adopt our tire and save annoyance and expense.

Write for our 1905 Catalogue, with testimonials, etc.

The ST. JOHN RUBBER TIRE CO., Inc. 116 Broad St., New York



LaTuba Horn

The latest European idea of a horn, made with an extra coil in the body of horn, which produces a deep and melodious tone. Two sizes, \$10 and \$12 each. 40 other styles and sizes in stock—brass or nickel plated. Catalog mailed on request.

Charles E. Miller

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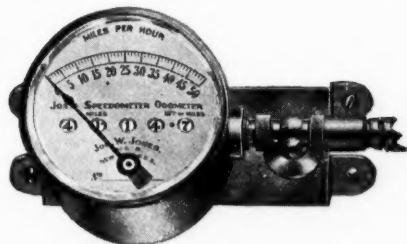
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Jones Speedometer—shows the speed.
Jones Odometer—shows the distance.
Jones Speedometer-Odometer—shows both.
The last device is a *combination* of the first two; it is possible for the automobilist to know constantly the *speed* of his car, and at the same time the *distance* traveled.
The instrument is attachable to the dashboard of any type of machine. Dust and water-proof; self-lubricating. *Guaranteed accurate.*

Booklet free on application.

JONES SPEEDOMETER,
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The Von Schwarz

None Genuine Without
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Acetylene Burners

SOME ADVANTAGES

They are Recognized Standard Burners the World Over

Accurate in consumption. Free from carbonization and other troubles, and they are

Licensed under Patent 589342, August 31, 1897. This patent has been adjudicated by the U. S. Court of Appeal and IS VALID.

We advertise not only our burners, but also those firms who confine themselves to equip their lamps with **Licensed Burners.**

Is there any reason why you should equip your lamps with cheap

infringing imitations? **Protect your customers as we do protect you.**

For Information and Prices Apply to

H. KIRCHBERGER & CO.,

GENERAL LICENSEES,

50 Warren St., New York



Brown-Lipe Gears are Standard

Our Equalizing Gears

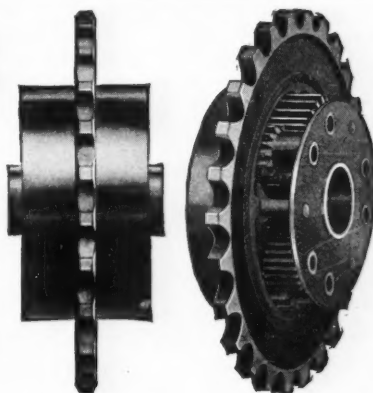
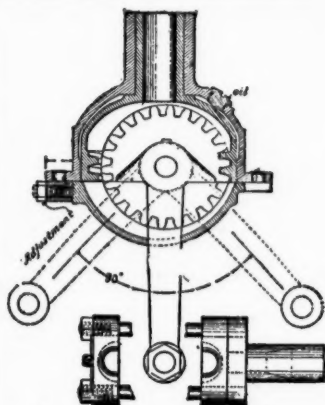
FIT ALL MAKES OF AXLES

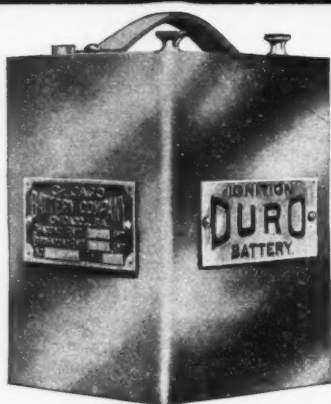
Direct or chain drive. Steering Gears are back locked. No vibration reaches the operating wheel

An early contract assures delivery

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HIGHEST GRADE OF AUTOMOBILE APPAREL

For Men and Women

FUR COATS from \$15.00 up
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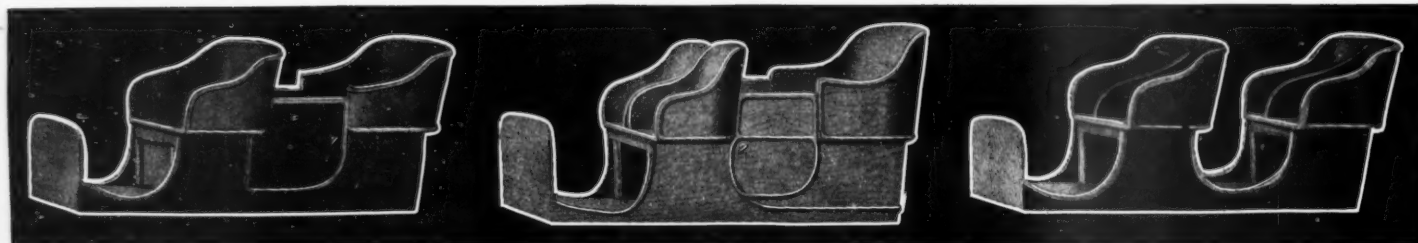
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We will exhibit in Madi-
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Write for Catalogue.

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MODERN BODIES---Ready to Use



These are but selections from our numberless Styles Models
Remember, we sell all Motor Car Parts Ready to Assemble

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Hand Book of Gasoline Automobiles

Issued for the Information of the Public who are interested in their Manufacture, Sale and Use

This new edition of this handsomely bound and artistically printed book containing illustrations of about 125 gasoline cars will be ready for mailing about Feb. 1st, 1905. The products of the principal manufacturers throughout the United States of America and the Importers of gasoline machines are shown by illustrations and specifications. These specifications form a series of the leading questions that arise in the mind of the purchaser, with the answers thereto in red ink. The questions being uniform, the ease of comparison is obvious, and the purchaser is enabled to select the machines which are best suited to the service required, to his personal taste, or the means at his command.

The 1904 Edition is Now Out of Print

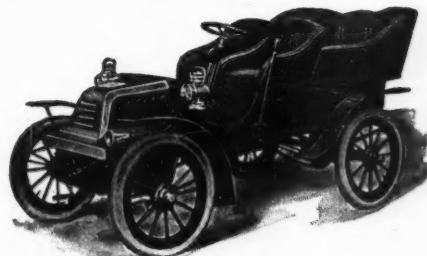
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A Runabout and Light Touring Car

Its motor is the heart and life of an automobile. Without a powerful and reliable motor, the car will prove unsatisfactory and of no service.



\$750 \equiv **\$850**

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WITH TONNEAU

19 YEARS MAKING GAS AND
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FACTS ARE OUR
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Our 8,000 motors, aggregating 50,000
h. p., doing business all over the
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We manufacture a strictly high grade,
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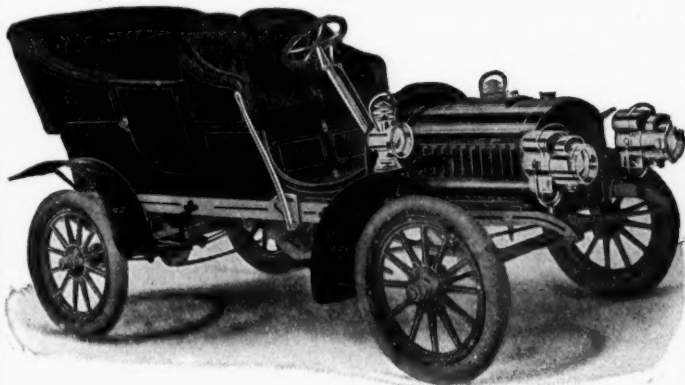
8 h. p. mechanically operated valves; transmission, three speeds
forward and reverse; capacity, 180 miles without recharging

PIERCE ENGINE CO., Box 175, Racine, Wis.

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Seven Years Hard Labor have been spent in
developing and perfecting the

WAYNE CARS



Model "C" shown in cut has 16 H. P. double opposed motor, planetary transmission, 90 inch wheel base, double side entrance tonneau. Price \$1,250.00.

Model "A" has practically the same construction with a rear entrance detachable tonneau, enabling this model to be used as a runabout if desired. Price \$1,200.00.

Model "B" is a 4-cylinder touring car, 24-28 H. P., bevel gear direct drive, sliding transmission, wheel base 102 inches, side entrance tonneau, weight 1,550 lbs. Price \$2,000.00. Has fewer parts than any 4-cylinder car made.

NEW YORK SHOW, SPACE "C." CHICAGO SHOW, SPACES 107-108.

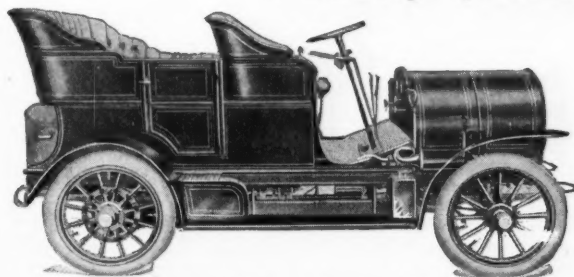
We shall be glad to demonstrate the merits of our cars at the New York and Chicago shows, or to send our catalog to those who appreciate quality and reliability at a moderate price. Will you write us today?

We have some good territory open for live agents and have an attractive proposition to make if you will write us at once.

THE WAYNE AUTOMOBILE CO., Dept. H., Detroit, Mich.

New York Agency—Wayne Auto. Agency, 308 W. 59th St.
Chicago Agency—McDuffee Auto. Co., 1145 Michigan Ave.
Boston Agency—Walter C. Masters, 14 and 16 Columbus Ave.

Price, \$1500



THE NEW GROUT FOR 1905

A few of the leading features in construction and equipment that appeal to everyone interested.

Twelve H. P. horizontal engine, running in an aluminum case with new continuous oiling device, lubricating every moving part positively. 18" copper, wire bound, boiler of our own make, *thoroughly guaranteed*. New one piece case iron burner with noiseless pilot that cannot be extinguished by any wind. New throttling device in connection with perfected superheater. New fuel system that eliminates complication. Power, air and water pumps that run off countershaft and remove all illegitimate strain from the engine. Side chain drive. Internal expanding brakes of new construction. Automatic drought arrangement. Very long springs and most modern body hang up. The equipment includes full set of tools and parts in special tool case on running board. Large acetylene headlight and acetylene water glass lamp from one generator. Two side oil lamps, all of brass. Large horn and tube. This car will seat five people comfortably.

GROUT BROS. AUTOMOBILE CO., Orange, Mass.

N. Y. Agency, Eastern Automobile Co., 310 West 59th St., New York
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Boston Office, 151-153 Columbus Ave., Boston, Mass.

1905 Catalogue will be sent upon request giving full details.

Superiority Recognized

Some skeptical buyers at first thought that solid tires fitted to automobiles would take away the pleasure and comfort in touring.

Ordinary solid tires may, but not so with the famous

Swinehart Tires

They lessen worries and give so much pleasure that the wise buyer recognizes their actual superiority.

They're better than pneumatics on bad roads—just as good on good roads.

They are easily fitted, being adapted to all Standard Clincher rims. Write for convincing tests made by delighted users. You will find us in Concert Hall at New York Show.



The Swinehart Clincher Tire & Rubber Co.

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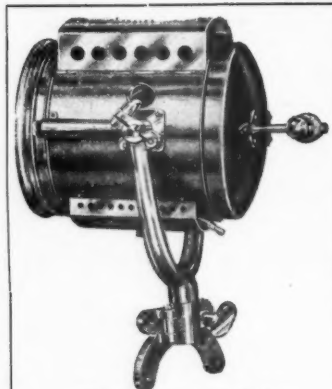
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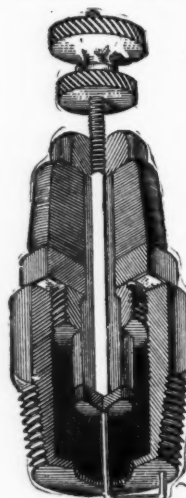
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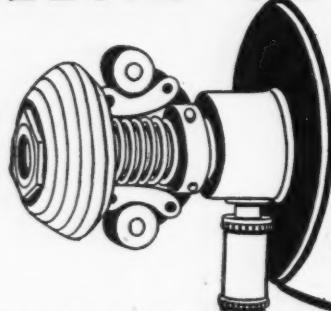


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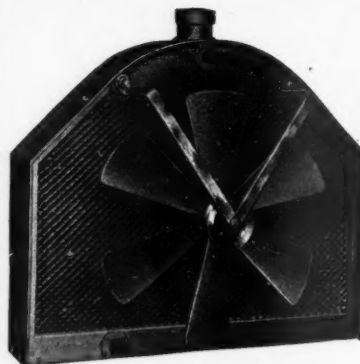
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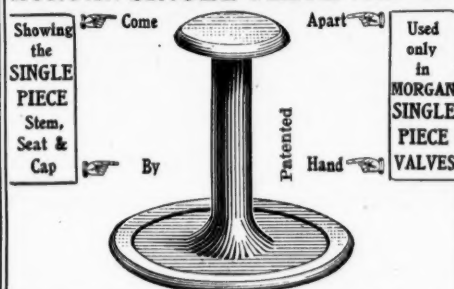


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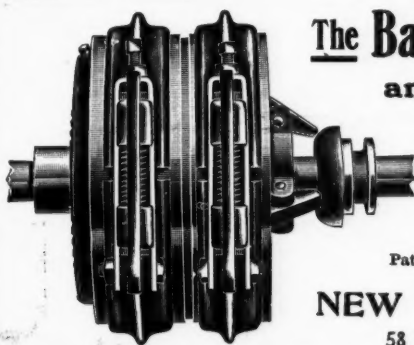
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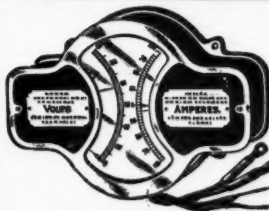
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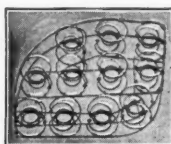
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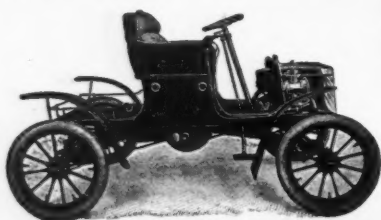
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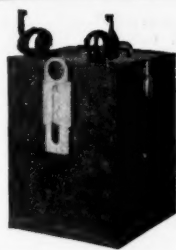
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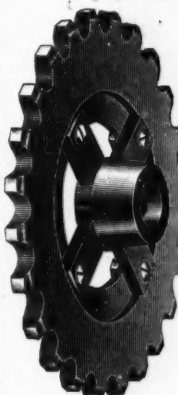
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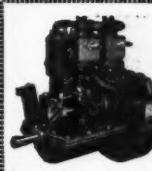
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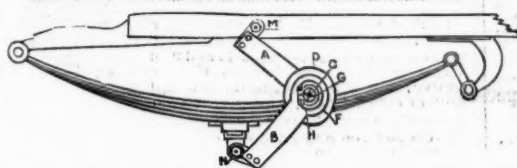
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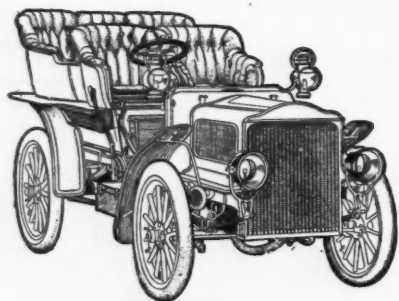
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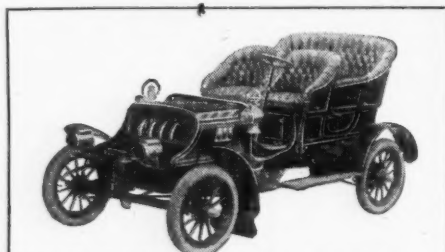
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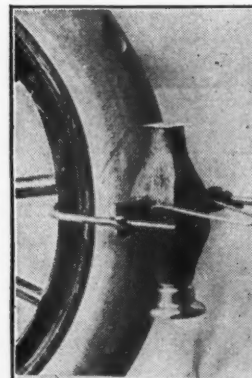


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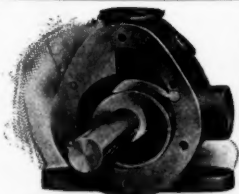
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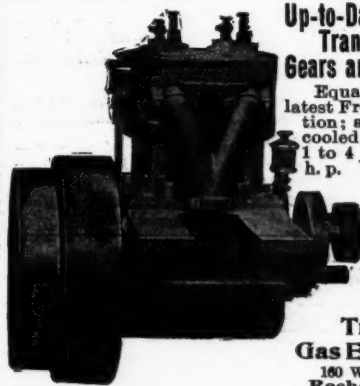


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Will lift any car with 28, 30, 32 or 34-inch wheels.
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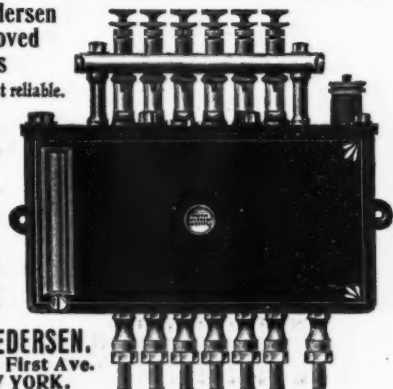
are the most reliable.

An easy flow of oil always insured.

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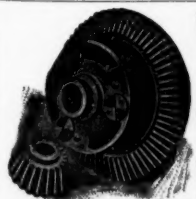


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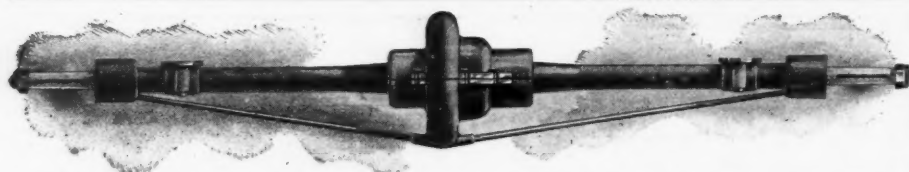
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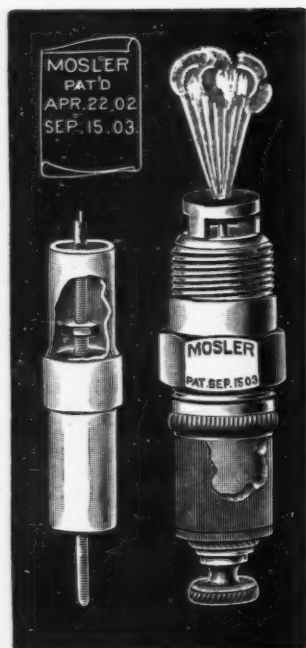
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Ignition Troubles are often due to the Commutators

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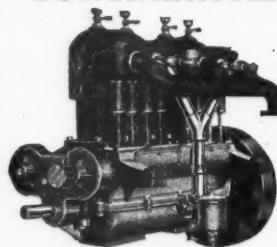
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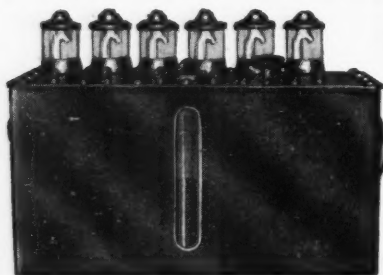
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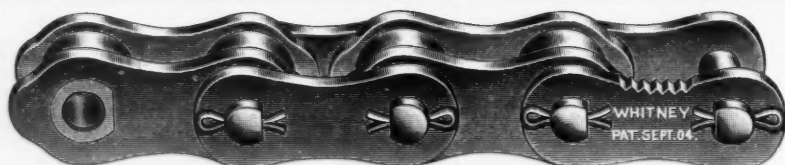
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We always said they would stay right the longest. We have something new in a Separable Plug. See at N. Y. or Chicago Auto Shows.
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1904 KNOX double cylinder Tonneau Touring Car, absolutely first class condition, canopy top and plate glass front; new Michelin tires; gas side lights, headlight and special mounted swivel searchlight; Jones speedometer and other valuable accessories; air cooled; just the car for winter as well as summer; a splendid bargain for \$1,350 complete; we have short option; write quickly. Kentucky Automobile Company, Louisville, Ky.

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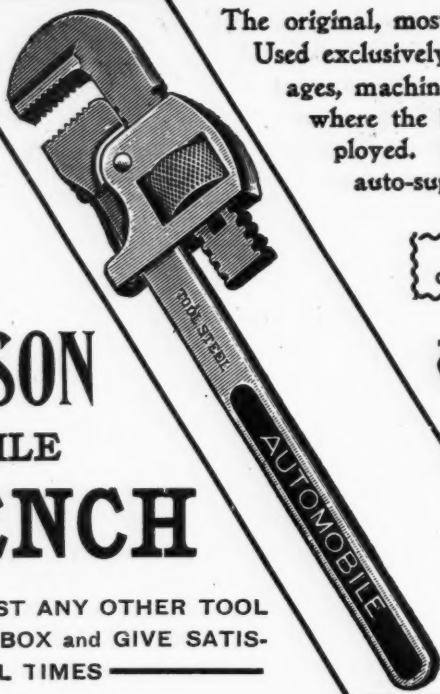
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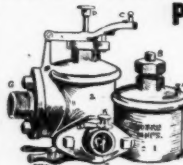
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Most marvelous remedy in the world
FOR THE THROAT
A magical cure for sore throat of any kind, coughs,
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A LIFE SAVER FOR AUTOMOBILISTS AND DRIVERS
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are not protected from grit? A lit-
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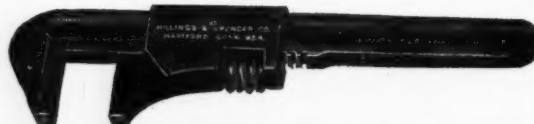
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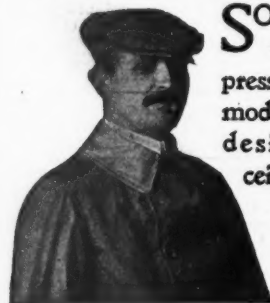


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No. 1000. MASK CAP FOR MEN



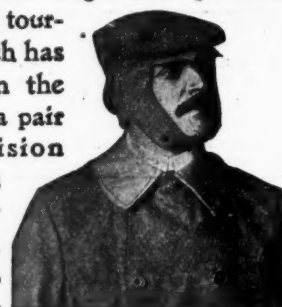
Position 1

SO favorably
were we im-
pressed with this
model which our
designers con-
ceived, that we
petitioned
for a patent
which has
been grant-
ed. The

illustrations clearly convey to the eye
the four functions which this cap faith-
fully answers. Figure one presents

a dignified tour-
ist cap which has
attached in the
back fold a pair
of wide vision
goggles
cleverly
concealed.

Figure two
shows the
hood in



Position 2

service. The visor is flexible and

easily turned up
into the crown
of the cap when
the mask and
goggles are in

service
as Figure
three de-
picts.

From the
wind, the

snow, the dust and rain does the
cap warrant immunity.

- a. Of Cheviot Cloth, in mixtures ;
Burberry Cloth, in grey or tan ;
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Linen in tan or any other fabric
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THE PIERCE LINE FOR 1905 WILL INCLUDE:

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Dealers can secure this splendid line now for all unoccupied territory
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Standard Motor Car Co.—Scranton, Pa.
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MADE SO GOOD THAT
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CAUSE FOR REMOVAL



Diamond



1905 Detachable Clincher Tires

Investigate results shown by Diamond 1905 Wrapped Tread Construction.

Unlimited tests prove it no exaggeration to say that these tires establish a new high grade of tire superiority and it is exclusively their own.

Examine this construction at the Auto Shows. After thousands of miles of service it shows no sign of wear.

The Clincher style of applying and fastening tires, also, has been tried out against every variety of other methods during many years past in Europe and still the Clincher type leads everything.

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